

VIDE-V31712

# SANYO

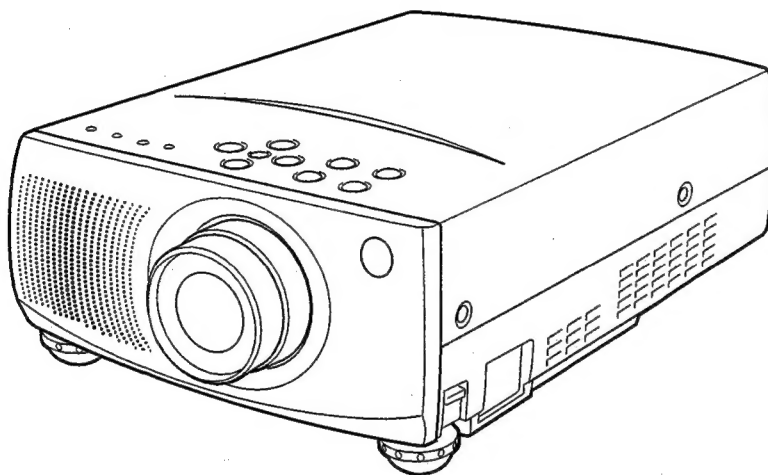
FILE NO.

## SERVICE MANUAL Multimedia Projector

Model No. PLV-30

U.S.A., Canada,  
Europe, Asia, Africa  
U.K

Original Version



Chassis No. M4G-3000

**NOTE:** Match the Chassis No. on the unit's back cover with the Chassis No. in the Service Manual.

**If the Original Version Service Manual Chassis No. does not match the unit's,** additional Service Literature is required. You must refer to "Notices" to the Original Service Manual prior to servicing the unit.

### PRODUCT CODE

(M4GA) 1 122 087 00

(P4GA) 1 122 088 00

(P4GC) 1 122 088 02

REFERENCE NO. SM5110166

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## ■ Safety Instructions

### SAFETY PRECAUTIONS


#### WARNING:

The chassis of this projector is isolated (COLD) from AC line by using the converter transformer. Primary side of the converter and lamp power supply unit circuit is connected to the AC line and it is hot, which hot circuit is identified with the line (  ) in the schematic diagram. For continued product safety and protection of personnel injury, servicing should be made with qualified personnel.

The following precautions must be observed.

- |  |   |
|--|---|
| 1: An isolation transformer should be connected in the power line between the projector and the AC line before any service is performed on the projector.                                  | DO NOT OPERATE THIS PROJECTOR WITHOUT THE PROTECTIVE SHIELD IN POSITION AND PROPERLY SECURED.   |
| 2: Comply with all caution and safety-related notes provided on the cabinet back, cabinet bottom, inside the cabinet or on the chassis.  | 4: Before replacing the cabinet cover, thoroughly inspect the inside of the cabinet to see that no stray parts or tools have been left inside.        |
| 3: When replacing a chassis in the cabinet, always be certain that all the protective devices are installed properly, such as, control knobs, adjustment covers or shields, barriers, etc. | Before returning any projector to the customer, the service personnel must be sure it is completely safe to operate without danger of electric shock. |

### PRODUCT SAFETY NOTICE

Product safety should be considered when a component replacement is made in any area of the projector. Components indicated by mark  in the parts list and the schematic diagram designate components in which safety can be of special significance. It is, therefore, particularly recommended that the replacement of these parts must be made by exactly the same parts.

### SERVICE PERSONNEL WARNING

Eye damage may result from directly viewing the light produced by the Lamp used in this equipment. Always turn off Lamp before opening cover. The Ultraviolet radiation eye protection required during this servicing. Never turn the power on without the lamp to avoid electric-shock or damage of the devices since the stabilizer generates high voltages(15kV - 25kV) at its starts. Since the lamp is very high temperature during units operation replacement of the lamp should be done at least 45 minutes after the power has been turned off, to allow the lamp cool-off.

## ■ Specifications

Projector Type	Multi-media Projector
Dimensions (W x H x D)	7.44" x 2.93" x 11.42" (189mm x 74.5mm x 290mm)
Net Weight	5.51 lbs (2.5 kg)
LCD Panel System	0.7" TFT Active Matrix type, 3 panels
Panel Resolution	800 x 600 dots
Number of Pixels	1,440,000 (800 x 600 x 3 panels)
Color System	6 color system (PAL, SECAM, NTSC, NTSC4.43, PAL-M and PAL-N)
High Definition TV Signals	480i, 480p, 575i, 575p, 720p, 1035i and 1080i
Scanning Frequency	H-sync. 15 ~ 80kHz, V-sync. 50 ~ 100Hz
Projection Image Size (diagonal)	Adjustable from 30" to 200"
Horizontal Resolution	500 TV lines
Projection Lens	F 2.0 ~ 2.3 lens with f 28mm ~ 33.6mm Manual zoom and focus
Throw Distance	4.6' ~ 26.3' (1.4m ~ 8.0m)
Projection Lamp	120watt type
AV Input Jacks	RCA Type x 3 (Video/Y, Cb/Pb, Cr/Pr) and Mini DIN 4 pin x 1 (S-Video)
AV Audio Input Jack	Mini Jack (stereo)
Computer Input Jack	(VGA) HDB15 Terminal x 1
Computer Audio Jack	Mini Jack (stereo)
Service Port Jack	Mini DIN 8 pin x 1
Audio Output Jack	Mini Jack (stereo)
Internal Audio Amp.	1W RMS (monaural)
Built-in Speaker	1 speaker, 1.57" x 1.18" (40mm x 30mm)
Feet Adjustment	0° to 7.6°
Voltage and Power Consumption	AC 100 ~ 120V (2.2A Max. Ampere), 50/60Hz (The U.S.A and Canada) AC 200 ~ 240V (1.1A Max. Ampere), 50/60Hz (Continental Europe and The UK.)
Operating Temperature	41°F ~ 95°F (5°C ~ 35°C)
Storage Temperature	14°F ~ 140°F (-10°C ~ 60°C)
Remote Control Transmitters	Wireless Remote Control, batteries AA, UM3 or R06 Type x 2

● The specifications are subject to change without notice.



This symbol on the nameplate means the product is Listed by Underwriters Laboratories Inc. It is designed and manufactured to meet rigid U.L. safety standards against risk of fire, casualty and electrical hazards.

## ■ Note on Servicing

When you carry out the electrical, optical service adjustment or repairing with cabinet top removal, it should be done under the service conditions listed below. If you can not keep the one of following conditions, the projector turns off automatically by operating the protection circuit.

### Service Conditions:

Operating Temperature : 41°F ~ 81°F (5°C ~ 30°C)  
 Fans Control : Maximum  
 AC Power Supply : 100 ~ 120V or 200V ~ 240V

To set the Fan Control to maximum, follow the Fan Control Setting Procedure below;

### Fan Control Setting Procedure

1. Enter to the service mode.
  2. Select adjustment item no.<29> and change data value to <0> to <1>. Now the cooling fans operate in maximum.
  3. Exit from the service mode.
- After finishing the works, restore the service data to <0> following to the steps 1 to 3.

\* Please refer to the "Service Adjustment Menu Operation" described on page 23 for how to entering the service mode and changing the service data.

## ■ Adjustments after Parts Replacement

● : Adjustment necessary ○ : Check necessary

		Disassembly / Replaced Parts								
		LCD/ Prism Ass'y	Integrator lens	Relay Lens	Polarized glass			Power Board	Component Board	Main Board
					R	G	B			
Optical Adjustments	Integrator Lens Adjustment	○	●							
	Relay Lens Adjustment	○		●						
	Contrast Adjustment									
	R-Contrast adjustment				●					
	G-Contrast adjustment					●				
	B-Contrast adjustment						●			
Electrical Adjustments	Output voltage adjustment							●		
	FAN voltage adjustment								●	●
	PC offset adjustment									●
	PC gain adjustment									●
	Component gain adjustment									●
	AV gain adjustment									●
	NRS Adjustment									●
	Signal center adjustment									●
	PC Gamma off video adjustment									●
	PC/AV signal adjustment-1									●
	PC/AV signal adjustment-2									●
	S/H clock adjustment									●
	Common center adjustment	●								●
	White balance adjustment	○								○
	Black balance adjustment	○								○

## ■ Circuit Protections

This projector is equipped with the following circuit protections to operate in safety. If the abnormality occurs inside the projector, it will automatically turn off by operating one of the following protection circuits.

### Fuse

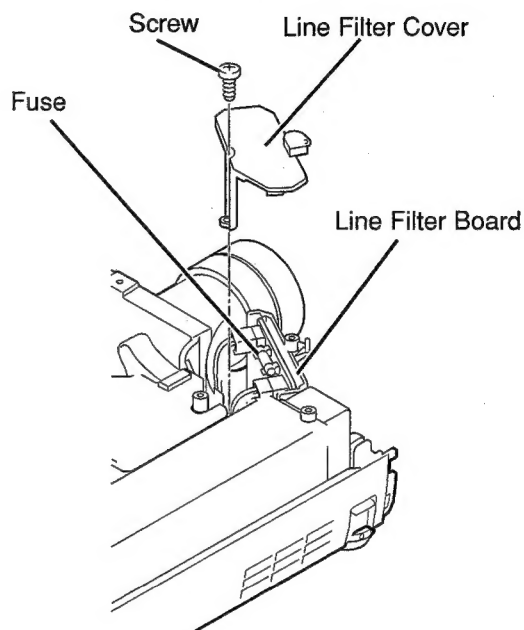
The fuse is located inside of the projector. When either the LAMP indicator or the READY indicator is not illuminated, fuse may be opened. Check the fuse as following steps.

It should be used the specified fuse as follows;

**Fuse Part No.: 423 022 2102**  
**TYPE T4.0AH 250V FUSE**  
**LITTLE FUSE INC. TYPE 215004**

#### How to replace the fuse

1. Remove the cabinet top and main board following to "Mechanical Disassemblies".
  2. Remove a screw and the line filter cover upward.
  3. Remove the fuse from fuse holder.
- To install the fuse, take reversed step in the above.



### Thermal switch

There is the thermal switch (SW902) inside of the projector to prevent the internal temperature from rising abnormally. When the internal temperature reaches near 100°C, turn off the AC main power supply automatically. The thermal switch is not reset to normal automatically even if the internal temperature becomes normal. Reset the thermal switch following procedure.

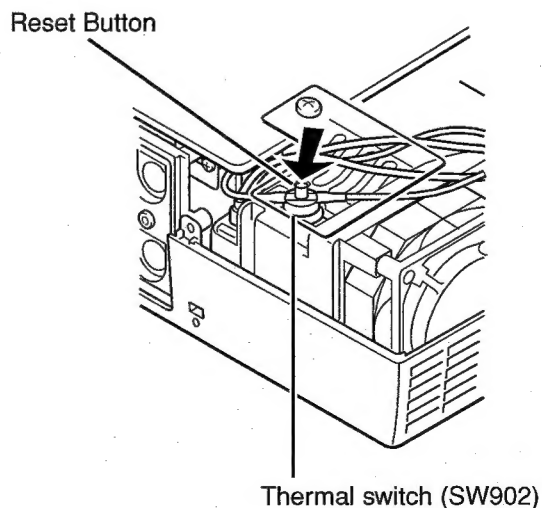
Check the resistance between terminals of thermal switch by using the tester. If it has high impedance, thermal switch may be in operative.

#### How to reset the thermal switch

1. Remove the cabinet top following to "Mechanical Disassemblies".
2. Press the reset button on the thermal switch.

#### CAUTION:

Before press the reset button, disconnect the AC cord from the projector.



## Warning temperature and power failure protection

The TEMP WARNING indicator flashes red and the projector will automatically turn off when the internal temperature of the projector exceeds the normal temperature or when stopping cooling fans or when the internal power supply lines are failed.

Check the following possible causes and wait until stopping the TEMP WARNING indicator flashing.

### Possible causes

- Air filter is clogged with dust particles. Remove dust from the air filter by following instructions in the "Air filter care and cleaning" below.
- Ventilation slots of the projector are blocked. In such an event, reposition the projector so that ventilation slots are not obstructed.
- Check if projector is used at higher temperature place (Normal operating temperature is 5 to 35 °C or 41 to 95°F)

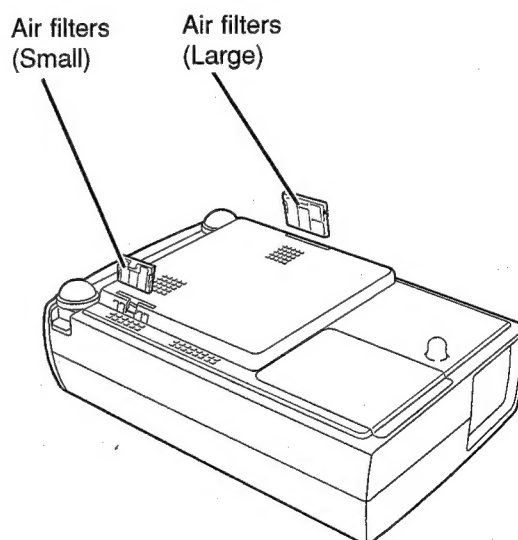
If the TEMP WARNING indicator still continues to flash, there may be defects on cooling fans or power supply circuits. Please check fan operation and power supply lines referring to the "Power Supply Lines Chart".

## Air filter care and cleaning

The removable air filters prevents dust from accumulation on the surface of the projection lens and projection mirror. Should the air filter become clogged with dust particles, it will reduce the cooling fan's effectiveness and may result in internal heat build up and reduce the life of the projector.

To clean up the air filters, follow the cleaning procedure below:

1. Turn the power off, and disconnect the AC power cord from the AC outlet.
2. Turn the projector up side down and remove 2 air filters (Large and Small) by pulling the latches of them upward.
3. Clean the air filters with brush or wash out the dust and particles.
4. Replace each air filter properly. Make sure that the air filters are fully inserted.



### CAUTION:

Do not operate the projector with the air filter removed. The dust is stuck on the LCD panel and the mirror, and it may spoil the fine picture image.

Do not put the small parts into the air filter intake vents. It result in the malfunction of the projector. The air filter is small parts. Take care that children don't eat or swallow it.

### RECOMMENDATION

We recommend to avoid dusty, smoky place for operating the projector. Using in dusty place may cause the picture of poor quality.

When using under the dusty or smoky conditions, dust may accumulate on the LCD panel and lens inside it, and may resultantly be projected on the screen together with the picture.

When the above symptoms are noticed, please clean up the LCD panel and lens following to the "Cleaning Method".



## ■ Mechanical Disassemblies

Mechanical disassemble should be made following procedures in numerical order.  
Following steps show the basic procedures, therefore unnecessary step may be ignored.

### Caution:

The parts and screws should be placed exactly the same position as the original otherwise it may cause loss of performance and product safety.

### 1. CABINET TOP REMOVAL

Remove 5 screws and pull cabinet top upward.

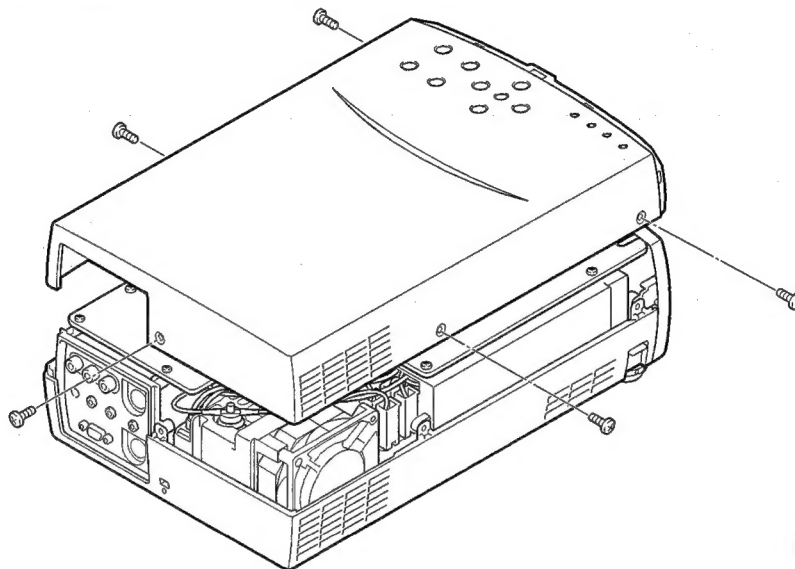


Fig.1

### 2. CABINET FRONT AND SPEAKER REMOVAL

- 1) Remove 4 screws (2 top and 2 bottom) **A** and take the cabinet front off forward.
- 2) Remove 2 screws **B** and then remove RC board and temp board.
- 3) Remove 4 screws **C** and the speaker.

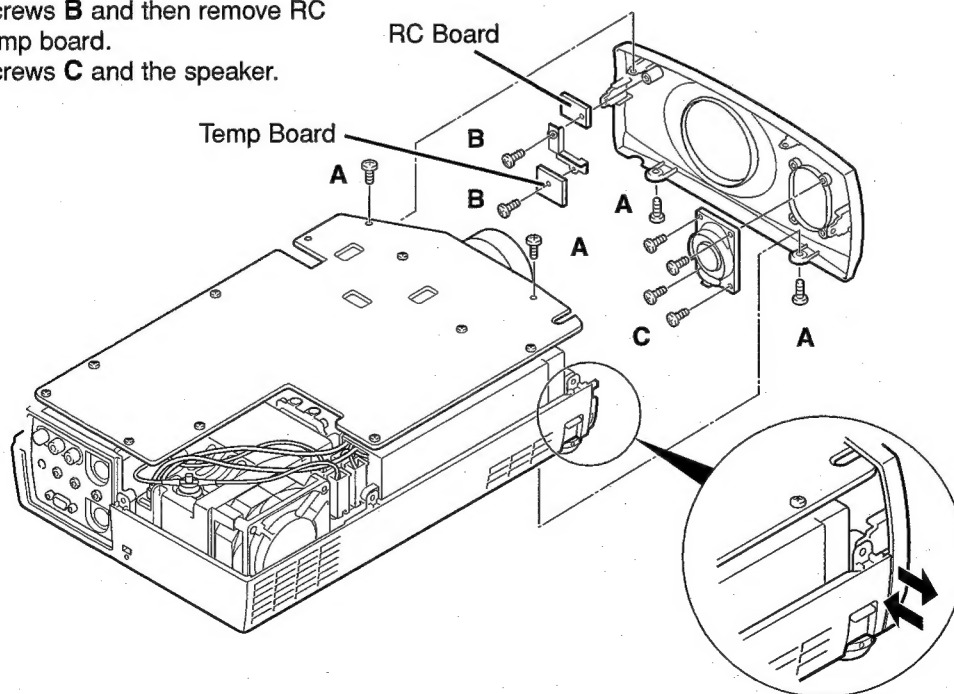


Fig.2



### 3. MAIN BOARD REMOVAL

Remove 9 screws and remove the main board upward.

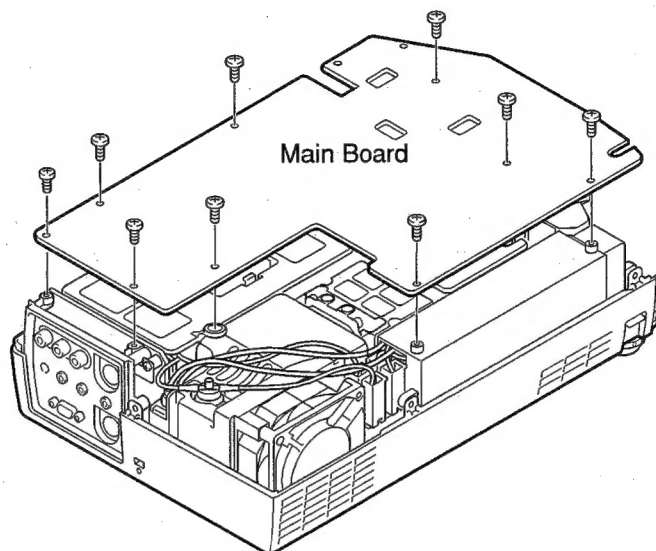


Fig.3

### FUSE REMOVAL

Remove a screw and pull the line filter cover upward and then replace the fuse if required.

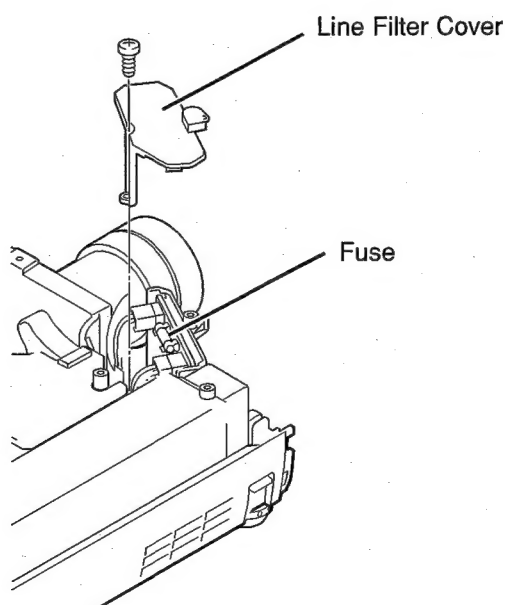


Fig.4

#### 4. AV AND COMPONENT BOARD REMOVAL

- 1) Remove 3 screws **A** and FPC cables, and then take the component board off upward.
- 2) Remove a screw **B** and a grounding lead, and then take the AV board ass'y off upward.

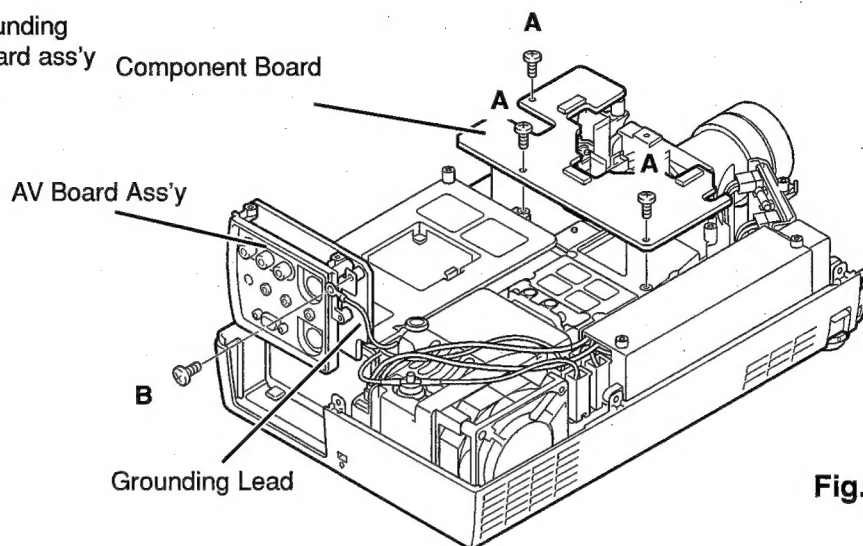


Fig.5

#### 5. LINE FILTER BOARD REMOVAL

- 1) Remove a screw **A** and remove a grounding lead.
- 2) Remove 2 screws **B** and take the line filter ass'y off upward.
- 3) Remove the line filter board from line filter holder.

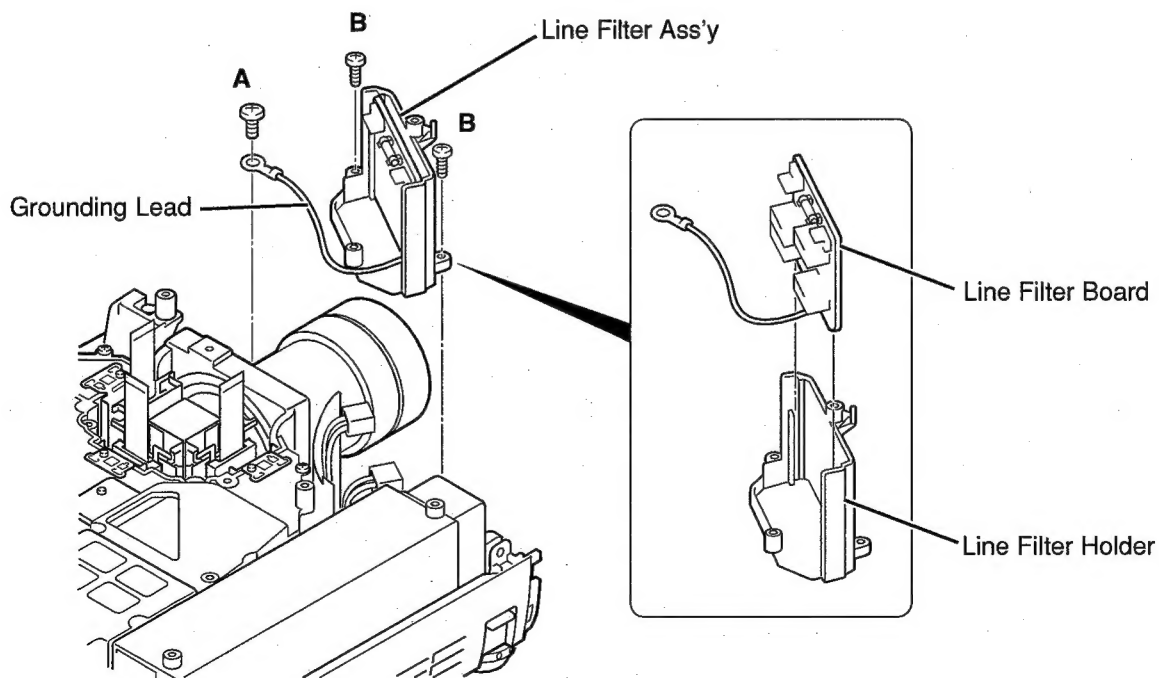
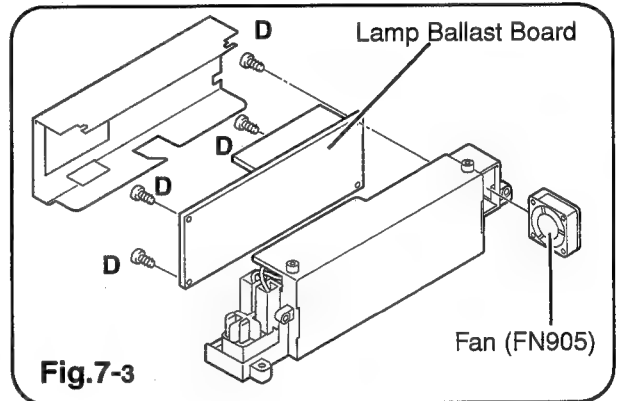
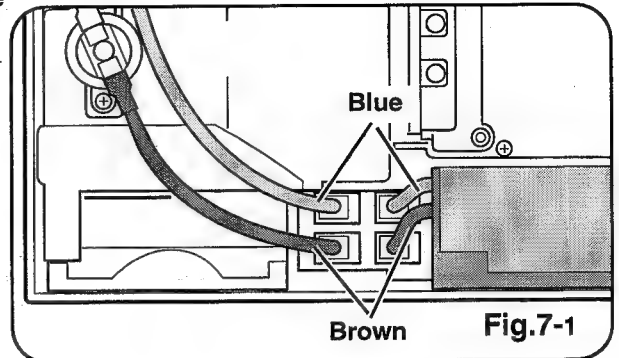
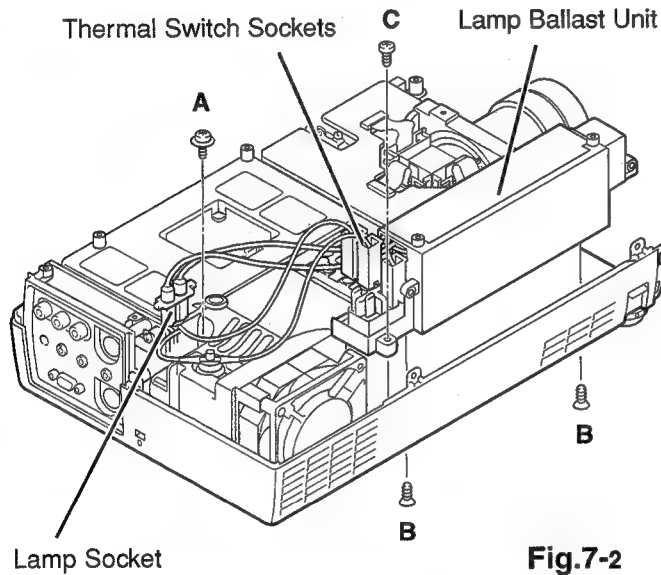


Fig.6

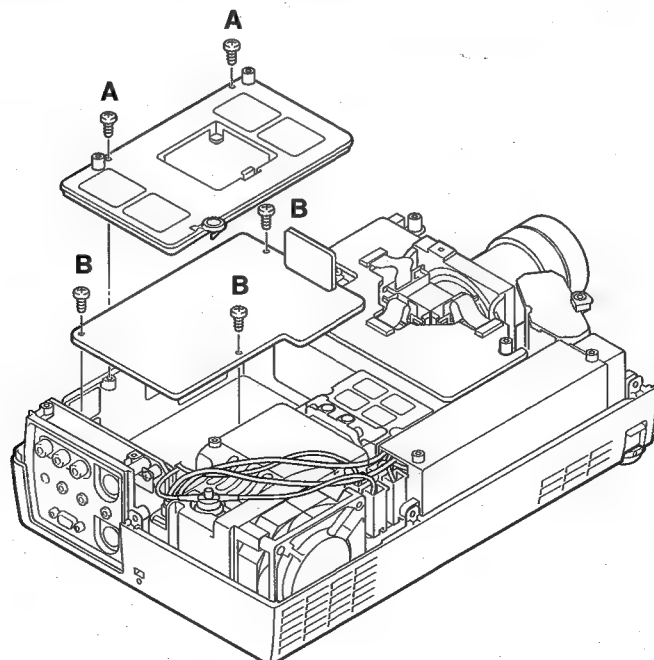
## 6. LAMP BALLAST UNIT FAN(FN905) REMOVAL

- 1) Disconnect the thermal switch sockets.
- 2) Remove a screw **A** and disconnect the lamp socket.
- 3) Remove 2 screws **B** (bottom side) and a screw **C**, and then remove the lamp ballast unit upward.
- 4) Take the cover off from the lamp ballast unit and remove 4 screws **D** and take the lamp ballast board off from the holder.
- 5) Remove the fan FN905 from the holder.



## 7. POWER BOARD REMOVAL

- 1) Remove 2 screws **A** and take the power unit cover off upward.
- 2) Remove 3 screws **B** and pull the power board upward.



### 8. OPTICAL UNIT AND FAN(FN901) REMOVAL

- 1) Remove 2 screws **A** and the thermal switch.
- 2) Remove a screw **B** and disconnect the lamp socket.
- 3) Remove 7 screws **C** and pull the optical unit upward.
- 4) Remove 2 screws **D** and fan (FN901).

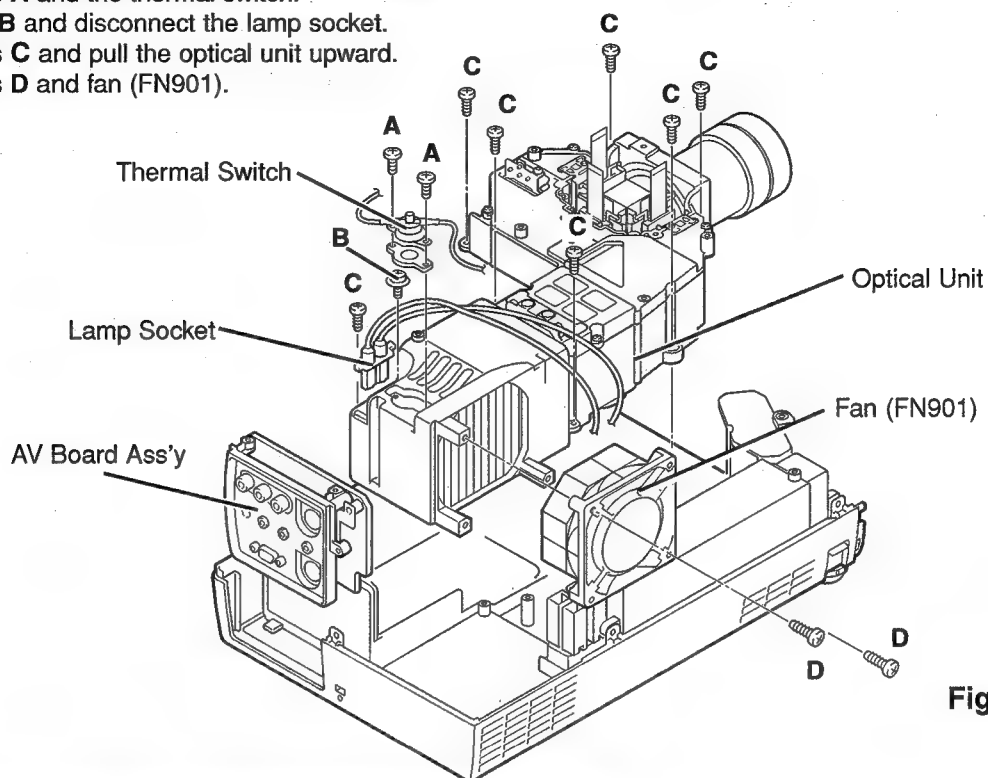


Fig.9

### 9. AUDIO AMP. BOARD REMOVAL

- 1) Remove a screw **A** (bottom side) and 2 screws **B**, and then pull the power unit holder upward.
- 2) Remove 2 screws **C** and take the audio amp. board off from the power unit holder

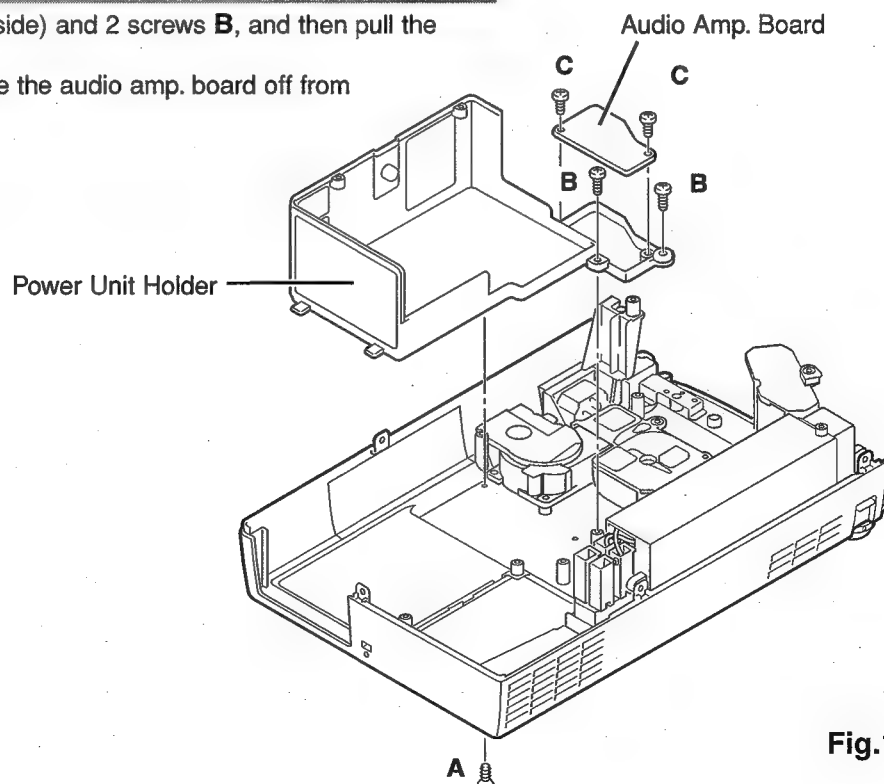


Fig.10

### 10. FANS(FN902, FN903, FN904) REMOVAL

Remove 4 screws A and 3 screws B and remove the duct cover and fans (FN902, FN903 and FN904)

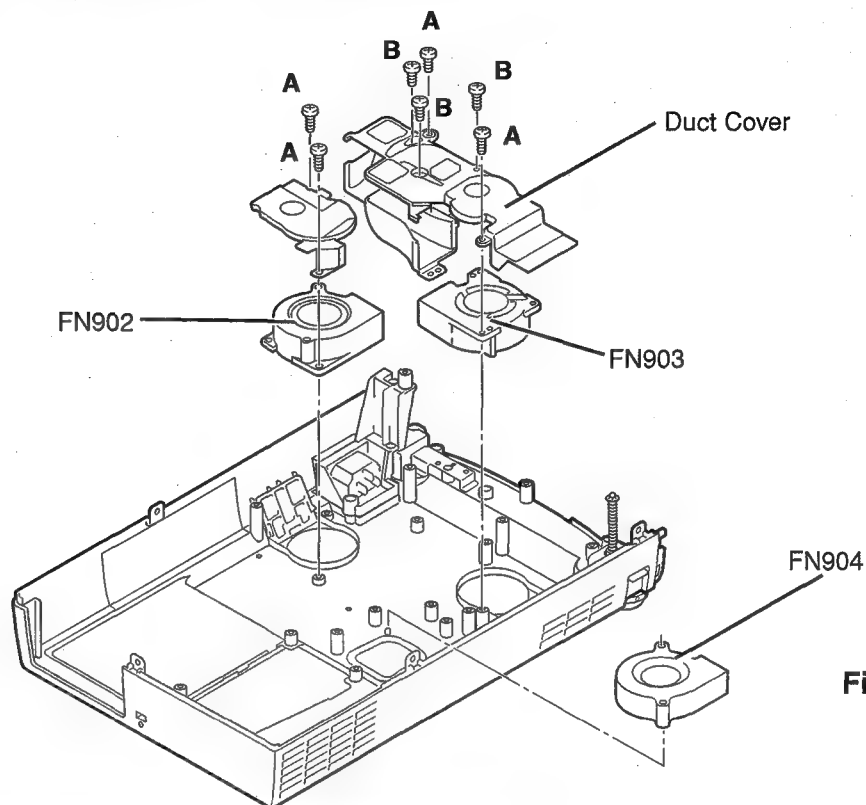


Fig.11

### 11. AC INLET ASS'Y REMOVAL

- 1) Remove a screw A and a grounding lead.
- 2) Remove 2 screws B and pull the AC inlet ass'y upward.

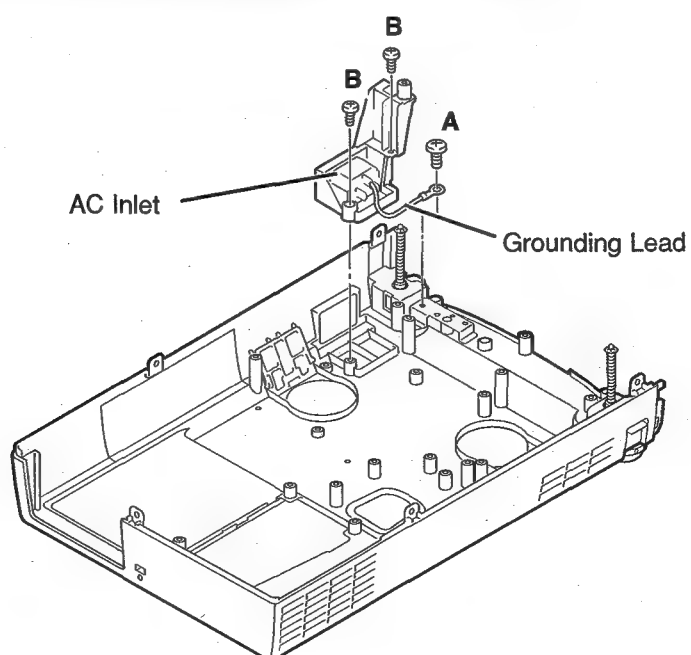


Fig.12

## ■ Optical Parts Disassemblies

### 1. PROJECTION LENS REMOVAL

- 1) Remove the Cabinet top and cabinet front following to "Mechanical Disassemblies".
- 2) Remove 4 screws and remove the Projection Lens.

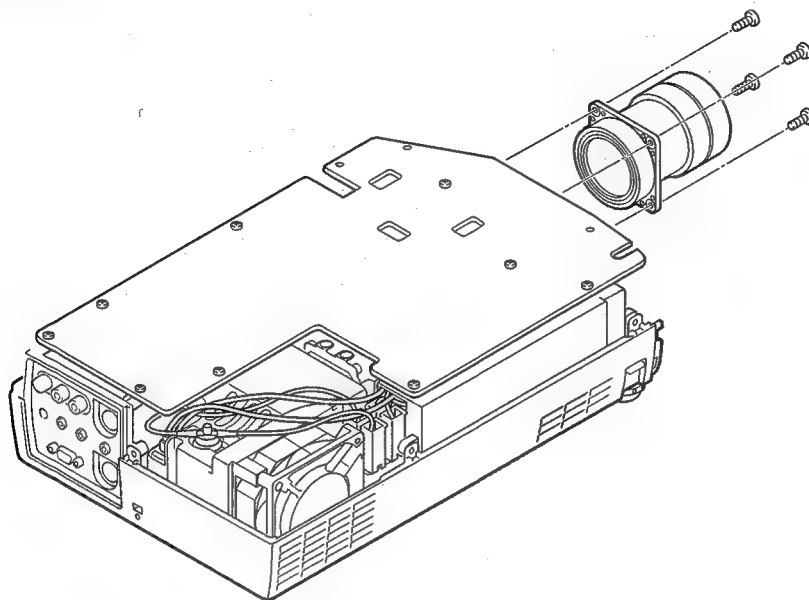


Fig.1

### 2. OPTICAL UNIT TOP REMOVAL

- 1) Remove the Cabinet top, front, main board, component boards and power unit cover following to "Mechanical Disassemblies".
- 2) Remove 6 screws and take the optical unit top off upward.

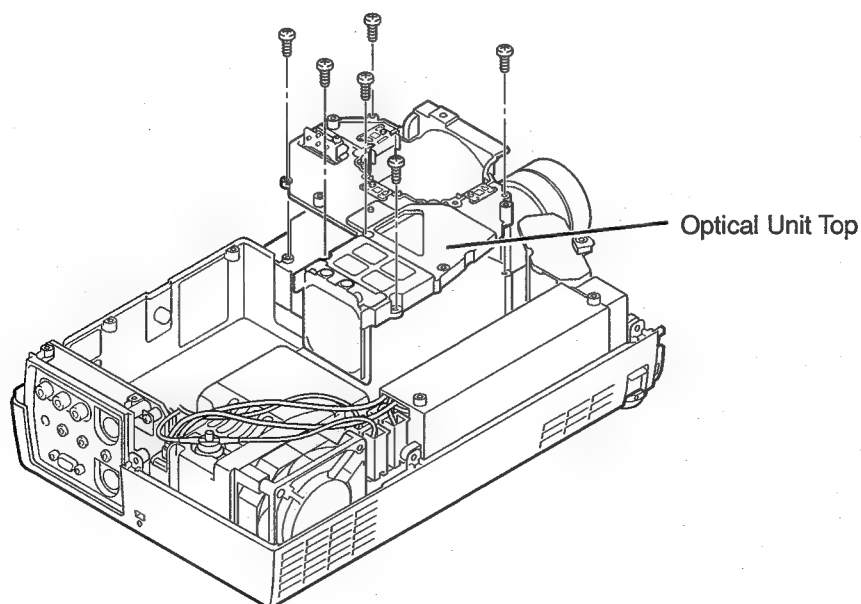


Fig.2

### 3. INTEGRATOR LENS ASS'Y DISASSEMBLY

- 1) Remove the cabinet top, front and main board following to "Mechanical Disassemblies".
- 2) Remove 2 screws **A** and take the integrator lens ass'y off upward.
- 3) Release 4 hooks **B** on the holder and remove the integrator lens.

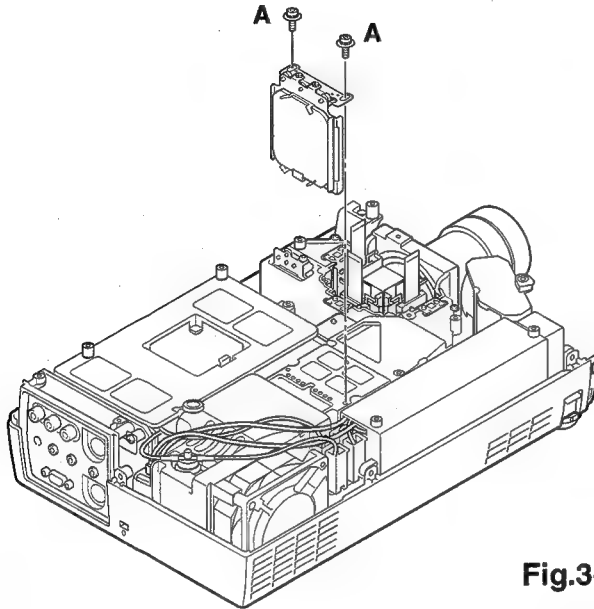
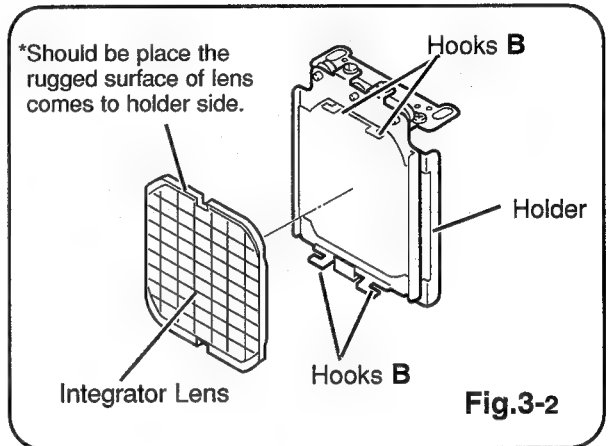


Fig.3-1



### 4. RELAY LENS ASS'Y DISASSEMBLY

- 1) Remove the cabinet top, front, main and component boards following to "Mechanical Disassemblies".
- 2) Remove 2 screws **A** and take the relay lens ass'y off upward.
- 3) Remove 2 screws **B** on the holder and take the relay lens off.

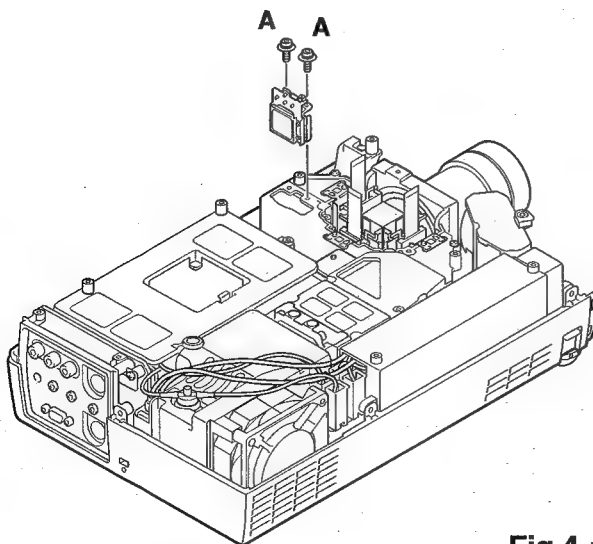
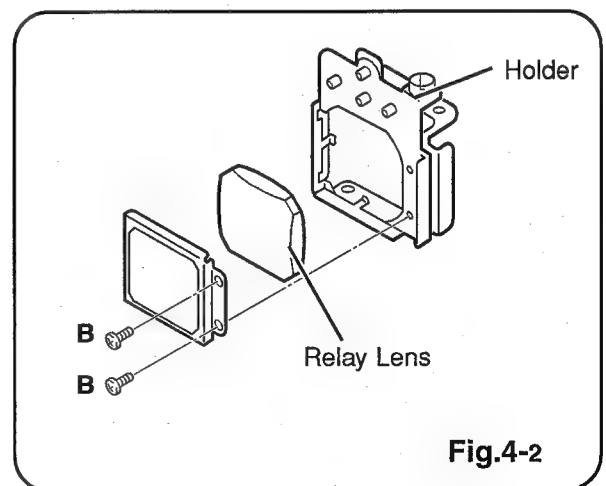


Fig.4-1





## 5. POLARIZED GLASS-IN ASS'Y DISASSEMBLY

- 1) Remove the cabinet top, front, main and component boards following to "Mechanical Disassemblies".
- 2) Remove each screw and take the each polarized glass-in ass'y off upward.
- 3) Release 2 hooks and remove the polarized glass-in.

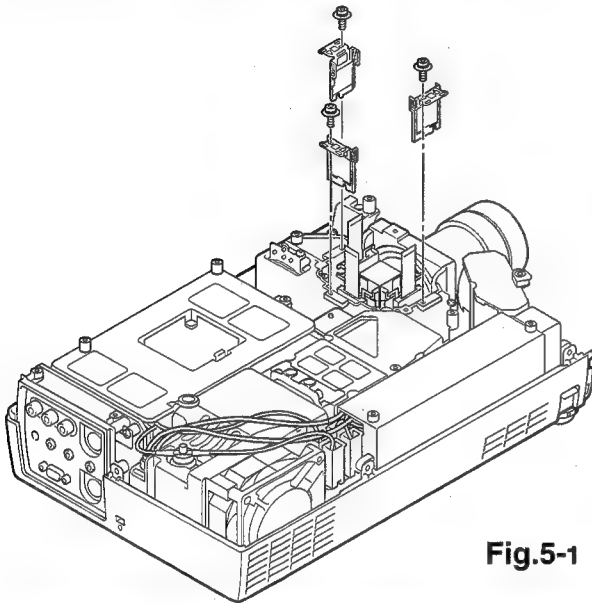
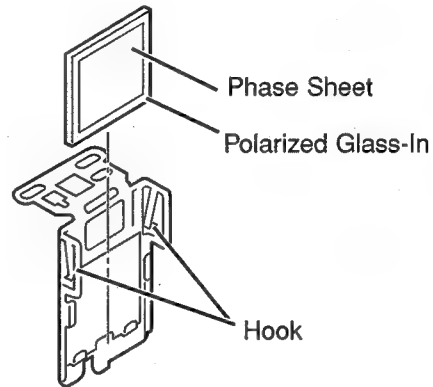


Fig.5-1



\* Mount the polarized glass as the surface attached the phase sheet comes to the prism side.

Fig.5-2

## 6. POLARIZED GLASS-OUT ASS'Y DISASSEMBLY

- 1) Remove the cabinet top, front and main boards following to "Mechanical Disassemblies".
- 2) Remove 4 screws by using the 2.0 mm hex driver and take the LCD Panel/Prism ass'y off upward from the optical unit.
- 3) Remove each screw and take the each polarized glass-out off upward.

Note:  
Do not replace the LCD panel separately otherwise it can not obtain proper picture.

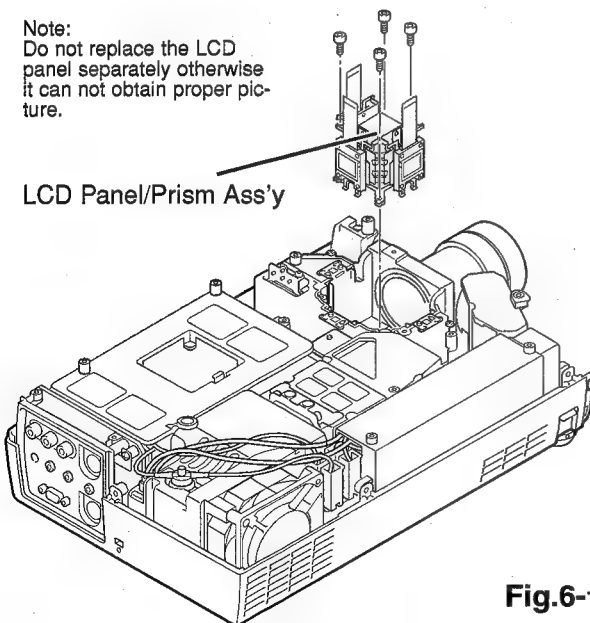
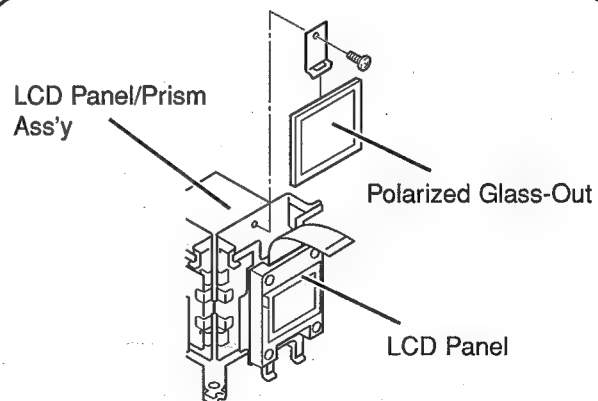


Fig.6-1



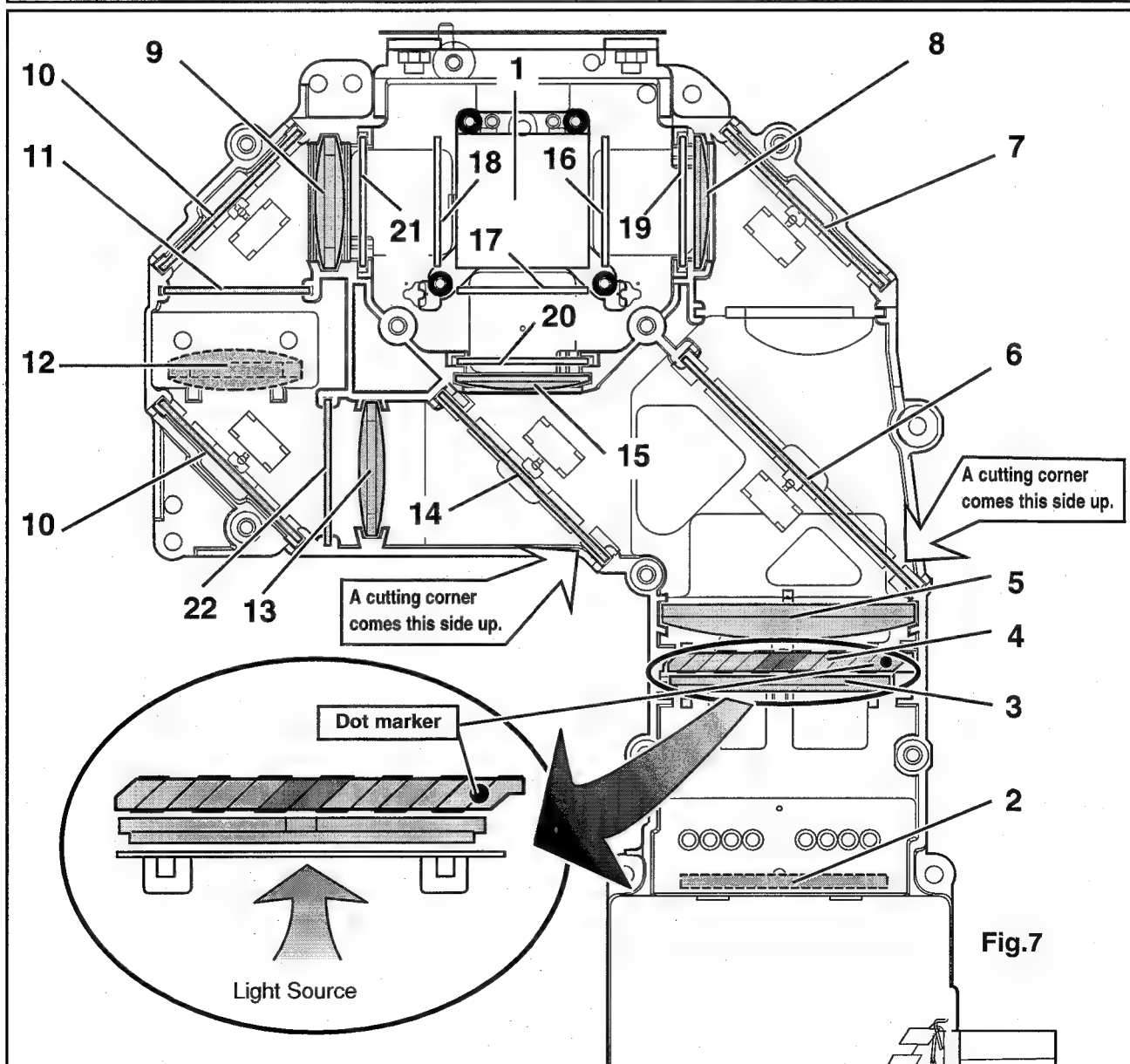
\* Mount the polarized glass as the surface attached the phase sheet comes to the LCD panel side.

Fig.6-2

### Locations and Directions

When the optical parts mounting or assembling, the parts must be mounted in the specified location and direction. Please follow to the figure below.

No.	Part name	No.	Part name
1	Prism ass'y	12	Relay lens (OUT)
2	Integrator lens (IN)	13	Relay lens (IN)
3	Integrator lens (OUT)	14	Dichroic mirror (G)
4	Prism Ass'y (PBS)	15	Condenser lens
5	Condenser lens (OUT)	16	Polarized glass (OUT/R)
6	Dichroic mirror (R)	17	Polarized glass (OUT/G)
7	Mirror (R)	18	Polarized glass (OUT/B)
8	Condenser lens (R)	19	Polarized glass (IN/R)
9	Condenser lens (B)	20	Polarized glass (IN/G)
10	Mirror (B)	21	Polarized glass (IN/B)
11	Optical Filter (UV cut)	22	Optical Filter (RB)



## ■ LCD Panel/Prism Ass'y Replacement

### IMPORTANT NOTICE on LCD Panel/Prism Ass'y Replacement

LCD panels used for this model can not be replaced separately. Do not disassemble the LCD Panel/Prism Ass'y. These LCD panels are installed with precision at the factory. When replacing the LCD panel, should be replaced whole of the LCD panels and prism ass'y at once.

After replacing LCD Panel/Prism ass'y, please check the following adjustments.

- Check the "Integrator Lens Adjustment" and "Relay Lens Adjustment" following to chapter "Optical Adjustment".
- Check the "White Balance Adjustment" and "Black Balance Adjustment" following to chapter "Electrical Adjustment".
- Check the white uniformity on the screen.

If you find the color shading, please adjust the white uniformity by using the proper computer and "Color Shading Correction" software supplied separately. The software can be ordered as follows;

**COLOR SHADING CORRECTION (Ver. 2.0.2)**

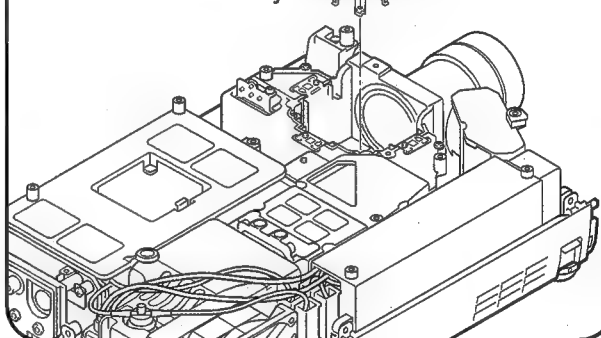
Service Parts No. 645 045 7272

### ● LCD PANEL/PRISM ASS'Y REMOVAL

1. Remove the cabinet top, front and main board following to "Mechanical Disassemblies".
2. Remove 4 screws by using the 2.0 mm hex driver and take the LCD Panel/Prism ass'y off upward from the optical unit.

Note:  
Do not replace the LCD panel separately otherwise it can not obtain proper picture.

LCD Panel/Prism Ass'y



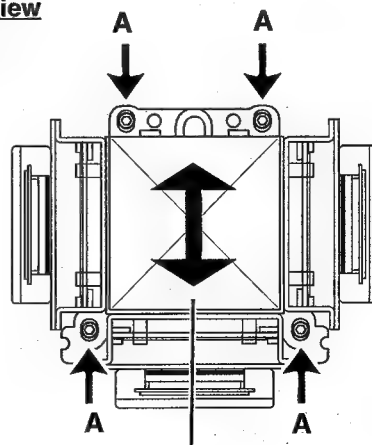
### ● NOTE ON LCD PANEL/PRISM ASS'Y MOUNTING

After replacing or installing the LCD Panel/Prism ass'y, please make sure to obtain the best focus in both TELE and WIDE zoom. If the focus adjustment is required, please adjust the positioning of LCD Panel/Prism Ass'y by following the below procedure.

#### Mounting Procedure:

1. Loosen 4 screws **A** on the LCD Panel/Prism ass'y with 2.0 mm hex driver.
2. Turn the projector on and project the image with WIDE zoom, and adjust the FOCUS control to obtain the best focus.
3. Turn the ZOOM control to the TELE position.
4. Move the LCD Panel/Prism Ass'y backward or forward (about 0mm ~ 0.8mm) to obtain the proper focus. Confirm the focus at TELE and WIDE zoom.
5. Tighten 4 screws **A** to fix the LCD Panel/Prism ass'y.

Top View



LCD Panel/Prism Ass'y

## ■ Lamp Replacement

### WARNING:

- For continued safety, replace with a lamp assembly of the same type.
- Allow the projector to cool for at least 45 minutes before you open the lamp cover. The inside of the projector can become very hot.
- Do not drop the lamp module or touch the glass bulb! The glass can shatter and cause injury.

### Procedure

1. Turn off the projector and disconnect the AC cord. Allow the projector to cool for at least 45 minutes.
2. Remove a screw with a screwdriver and remove the lamp cover.
3. Remove 2 screws and pull out the lamp assembly by grasping the handle.
4. Replace the lamp assembly securely and tighten 2 screws.
5. Place the lamp cover and tighten a screw.
6. Connect the AC cord to the projector and turn on.

**7. Reset the lamp replacement monitor timer, see below explanation.**

### Note:

- Do not reset the Lamp Replacement Monitor Timer, except after the lamp is replaced.
- The projector can not be turned-on with the lamp cover removed, because when the lamp cover is removed, the interlock switch is also released to switch off the mains power for safety.

### How to reset the Lamp Replacement Monitor Timer

1. Turn the projector on, and press the **MENU** button and the ON-SCREEN MENU will appear. Press the **POINT LEFT/RIGHT** buttons to select **SETTING** and press the **SELECT** button. Another dialog box **SETTING MENU** will appear.
2. Press the **POINT DOWN** button and a red arrow icon will appear. Move the arrow to "Lamp age", and then press the **SELECT** button. The message "Lamp replace monitor Reset?" is displayed.
3. Select [Yes] to reset the Timer.

*Please refer to the owners manual for further information.*

### How to check the Accumulated Illumination Time

The LAMP REPLACEMENT indicator will illuminate when the accumulated illumination time of the lamp reaches 2000 hours. This is to indicate that lamp replacement is required.

You can check the accumulated illumination time of the lamp by following procedure.

1. Press and hold the pointer ▲ on the projector for more than 20 seconds.
2. The accumulated illumination time is displayed on the right bottom corner of the screen. For example, when "Lamp Age 123 hours" is displayed, the

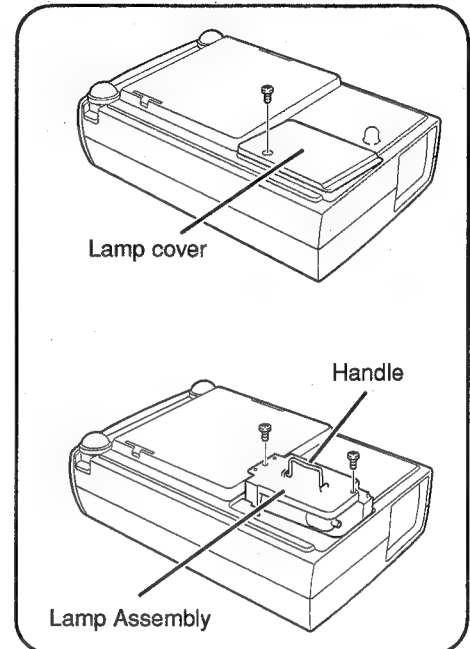
accumulated illumination time of the lamp is 123 hours. This will disappear in 5 seconds.



**Accumulated Illumination Time**

### ORDER REPLACEMENT LAMP

Type No.	Service Parts No.
POA-LMP25	610 287 5386
POA-LMP34	610 291 0032



### Recommendation

Should the air filter become clogged with dust particles, it will reduce the cooling fan's effectiveness and may result in internal heat build up and short lamp life. We recommend cleaning the air filter after the projection lamp is replaced.

Refer to "Air Filter Cleaning".

## ■ Optical Adjustments

### CONTRAST ADJUSTMENT

#### [Before Adjustment]

- Adjustment requires a 2.0mm hex wrench and a slot screwdriver.
- Remove cabinet top following to "Mechanical Disassemblies".
- Input a 100% of black raster signal.

Note: Do not disconnect the connectors on main and component boards otherwise the projector can not be turned on.

#### [R/G/B-CONTRAST ADJUSTMENT]

1. Shield the unnecessary lights by inserting the thick paper etc. in front of the LCD panels.  
When adjusting the R-Contrast, project red light only.  
When adjusting the G-Contrast, project green light only.  
When adjusting the B-Contrast, project blue light only.
2. Loosen a screw **A** (Fig.1-1/1-2) on the polarized glass mounting base which you intend to adjust.
3. Adjust a slots **B** as shown in Fig.1-1 to obtain the darkest brightness on the screen by turning a slot screwdriver.
4. Tighten the screw **A** to fix the polarized glass mounting base.

Repeat steps 1 to 4 for remaining polarized glasses.

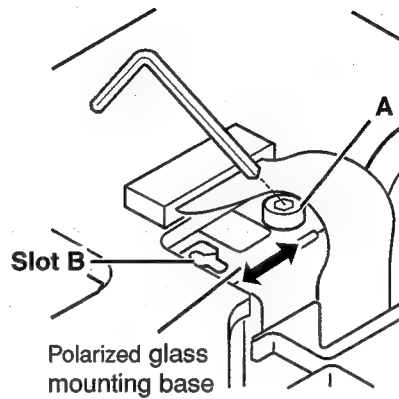


Fig.1-1

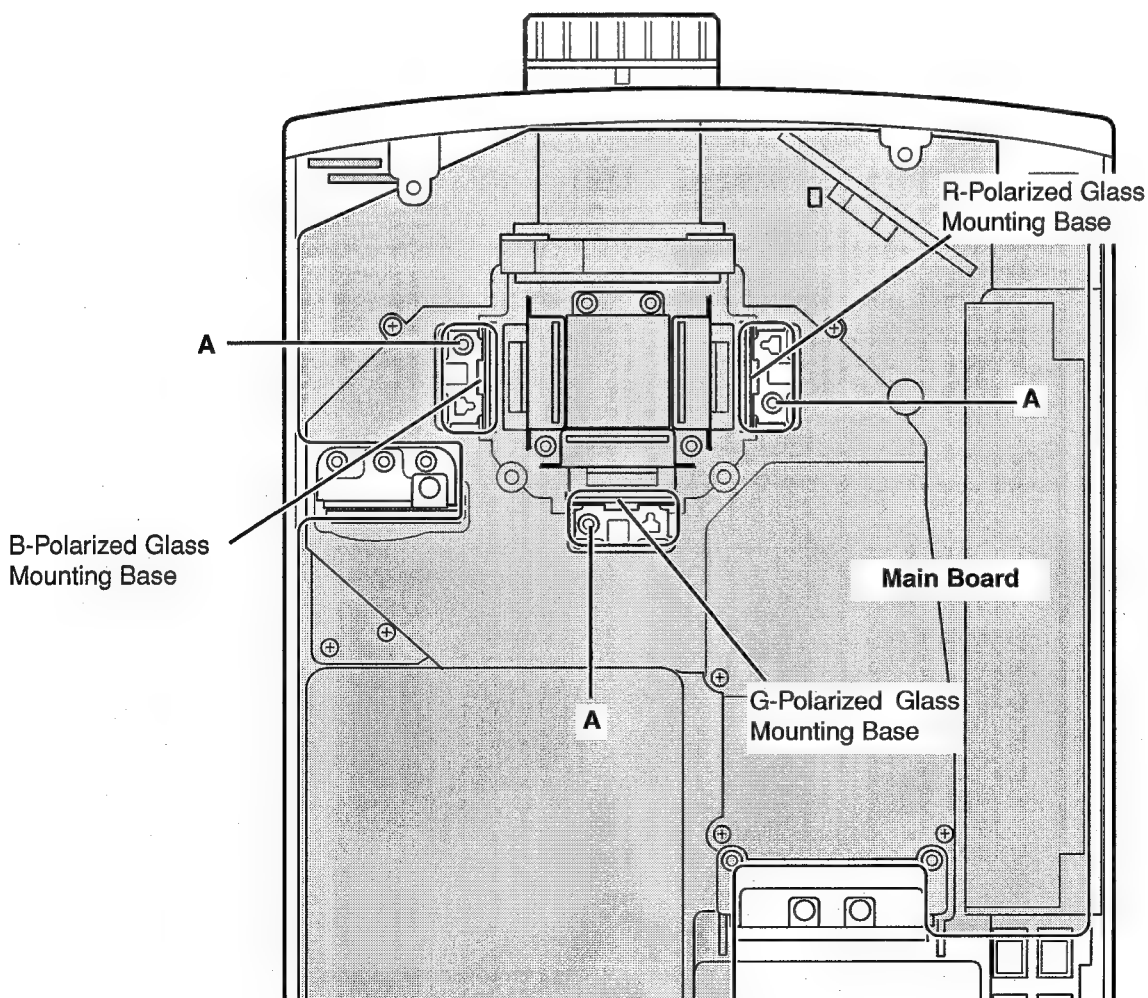


Fig.1-2

## INTEGRATOR LENS ADJUSTMENT

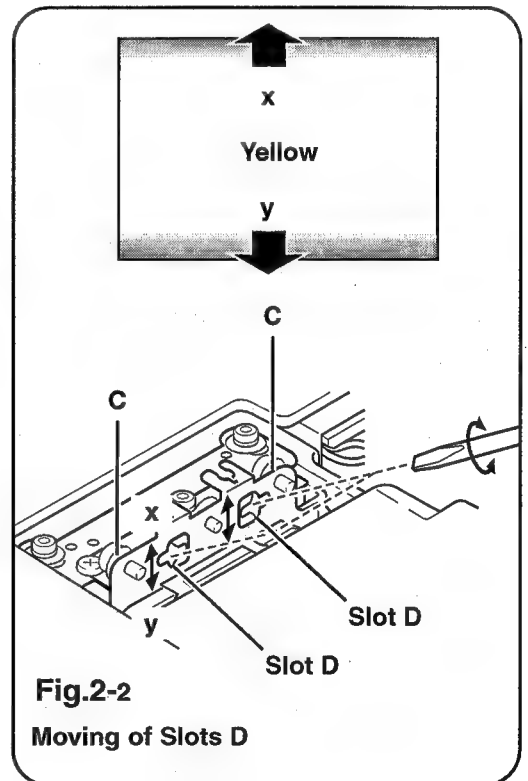
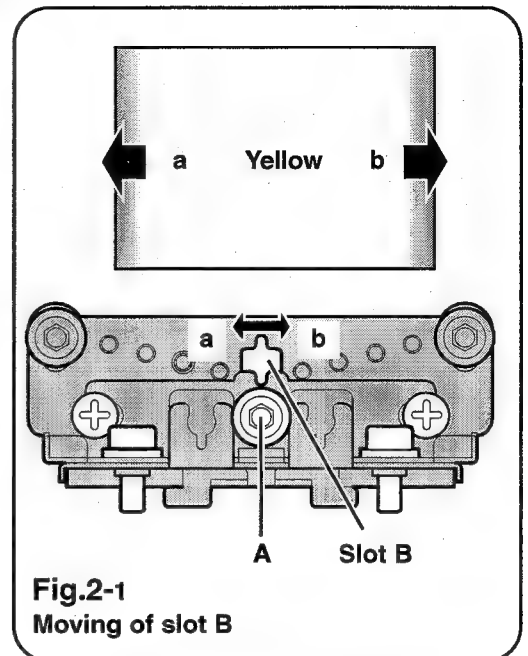
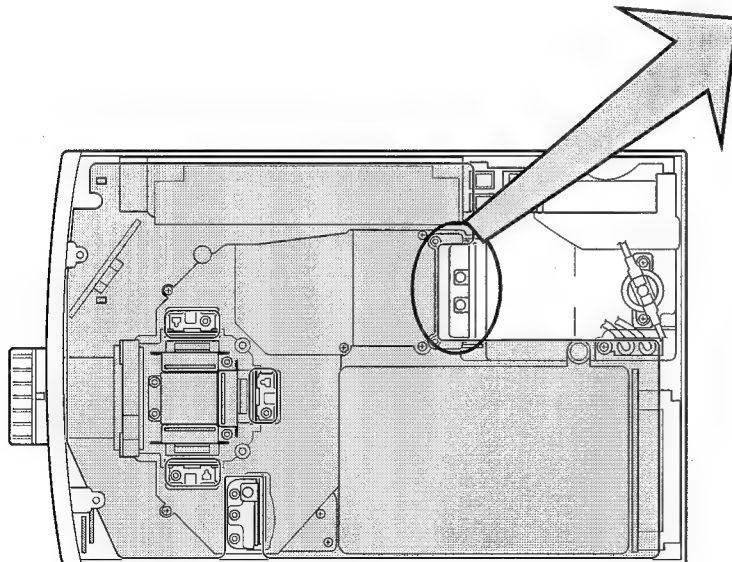
### [Before Adjustment]

- Adjustment requires a 2.0mm hex driver and a slot screwdriver.
- Remove cabinet top following to "Cabinet Disassemblies".

Note: Do not disconnect the connectors on main and component boards otherwise the projector can not be turned on.

### [ADJUSTMENT]

1. Turn on lamp by a state of without FPC cable of LCD panels.
2. Shield the red and blue lights by inserting thick papers etc. in front of Red and Blue LCD panels to project only green light and make a fine focus.
3. Remove the shield in front of Red LCD panel to project green and blue light.
4. Adjust the adjustment base of integrator lens ass'y to make color uniformity in yellow.
  - 1) If the color shade appears on the left or right of the screen as shown in **Fig.2-1**, loosen 1 screw **A** with the 2.0mm hex driver and adjust a slot **B** to make color uniformity in yellow by turning a slot screwdriver.
  - 2) If the color shade appears on the top or bottom of the screen as shown in **Fig.2-2**, loosen 2 screws **C** with the 2.0mm hex driver and adjust a slots **D** to make color uniformity in yellow by turning a slot screwdriver.
5. Tighten 1 screw **A** and 2 screws **C** to fix the integrator lens unit.
6. Remove the shield in front of Blue LCD panel and project red, green and blue light. Check that there is no color shade on the left or right of the screen. If you recognise the color shade, the "Relay Lens Adjustment" should be carried out to obtain the proper color uniformity.



## RELAY LENS ADJUSTMENT

### [Before Adjustment]

- Adjustment requires a 2.0mm hex driver and a slot screwdriver.
- Remove cabinet top following to "Cabinet Disassemblies".

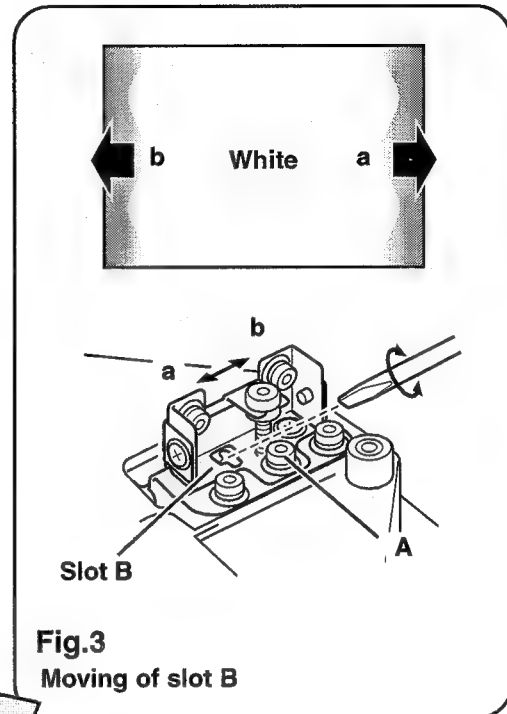
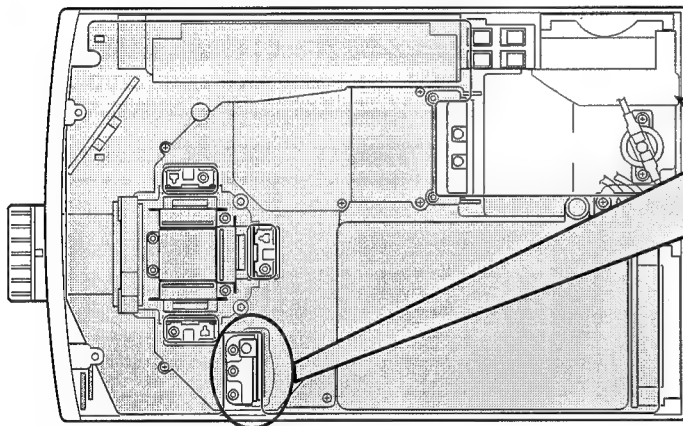
Note: Do not disconnect the connectors on main and component boards otherwise the projector can not be turned on.

### [ADJUSTMENT]

1. Turn on lamp by a state of without FPC cable of LCD panels.
2. Adjust the adjustment base of relay lens ass'y to make color uniformity in white.

If the color shade appears on the left or right of the screen as shown in **Fig.3**, loosen a screw **A** with the 2.0mm hex driver and adjust the slot **B** to make color uniformity in white by using a slot screwdriver.

3. Tighten the 1 screw **A** to fix the relay lens unit.



**Fig.3**  
Moving of slot B



## ■ Electrical Adjustments

### ● Service Adjustment Menu Operation

#### To enter the service mode

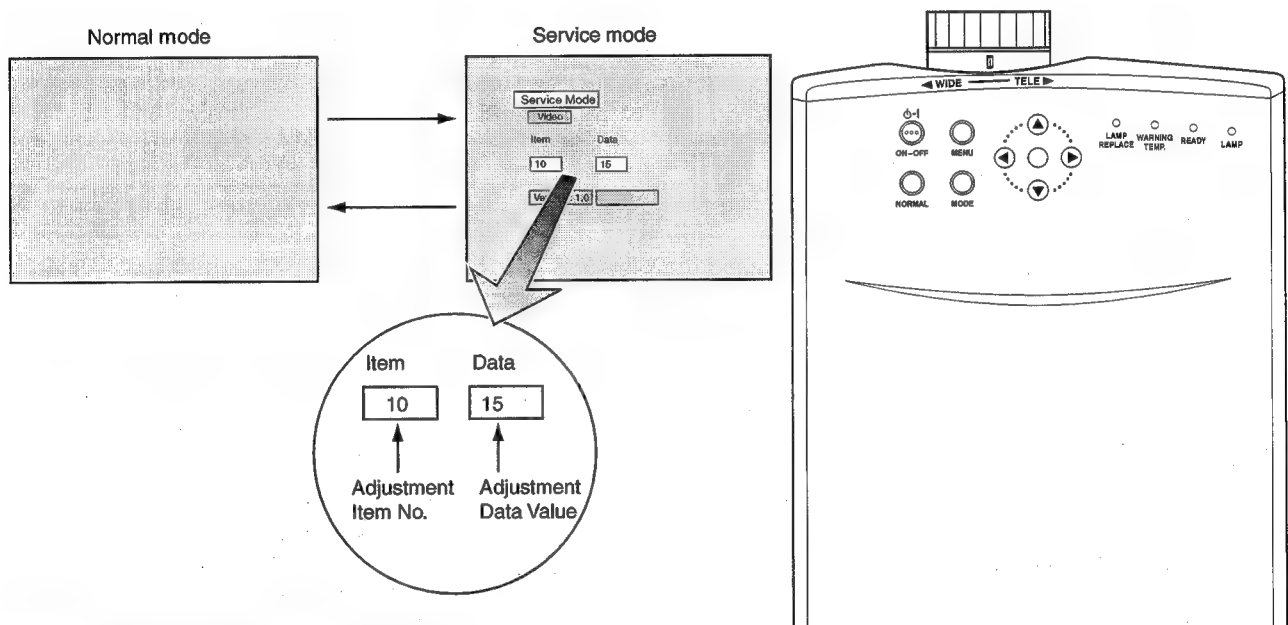
To enter to the "Service Mode", press and hold the **MENU** and **NORMAL** button on the projector at the same time for more than 3 seconds. The service mode display appears on the screen as follows.

#### To adjust service data

Select the adjustment item no. by pressing the pointer **▲** or **▼** button, and change the data value by pressing the pointer **◀** or **▶** button. Refer to the "Service Adjustment Data Table" for further description of adjustment item no. and data value.

#### To exit the service mode

To exit the service mode, press the **POWER ON-OFF** button on the projector or remote control unit.



### ● Memory IC Replacement

IC302 on the main board stores the data for the service adjustments, and should not be replaced except for the case of defective device.

If replaced, it should be performed the re-adjustments following to the "Electrical Adjustments".

The data of lamp replacement monitor timer is stored in the IC302.

Please note that the lamp replacement monitor timer is reset when the memory IC (IC302) is replaced.

(Lamp replacement monitor time can not be set to the previous value.)

#### ● Caution to memory IC replacement

When IC302 is replaced with new one, the CPU writes down the default data of the service adjustments to the replaced IC, refer to the service adjustment table. As these data are not the same data as factory shipped data, it should be required to perform the re-adjust-

ments following to the "Electrical Adjustments".

Please note that the lamp replacement monitor timer is reset.

#### ● Caution of Main Board replacement (in the case IC302 is not defective)

When the main board is replaced, IC302 should be replaced with the one on previous main board. After replacement, it should be required to perform the re-adjustments following to the "Electrical Adjustments". In this case, the lamp replacement monitor timer can be kept the value as before.

## ● Circuit Adjustments

**CAUTION:** The each circuit has been made by the fine adjustment at factory. Do not attempt to adjust the following adjustments except requiring the readjustments in servicing otherwise it may cause loss of performance and product safety.

### [Adjustment Condition]

- Input signal
  - Video signal ..... 1.0Vp-p/75Ω terminated, 16 steps gray scale (Composite video signal)
  - Component Video signal ..... 0.7Vp-p/75Ω terminated, 16 steps gray scale (Component video signal with 480i, 480p, 575p, 720p, 1035i or 1080i format)
  - Computer signal..... 0.7Vp-p/75Ω terminated, 16 steps gray scale pattern (SVGA)
- Picture control mode ..... "NORMAL" mode unless otherwise noted.

### Note:

\* Please refer to "Service Adjustment Menu Operation" for entering to the service mode and adjusting the service data.

### OUTPUT VOLTAGE ADJUSTMENT

After replacing the Power Board, P.F.C. Board, readjust the Output voltage adjustment as follows.

1. Connect a digital voltmeter to pins 1 (+) and 3 (-) of K6C.
2. Adjust the voltage by using VR01 as following.

AC Input	Reading
230V	380V $\pm 2V$
120V	372V $\pm 2V$

### Caution:

Be sure to connect the lamp when taking this adjustment.

### FAN VOLTAGE ADJUSTMENT

1. Connect a digital voltmeter to test point "TP6602" (+) and chassis ground (-).
2. Enter to the service mode, select item no. "29" and set data value to "1".
3. Adjust the voltage to be 12.1  $\pm 0.1V_{dc}$  by using VR6601.
4. Check that the voltages at test points "TP6601" (+), "TP6603" (+) and chassis ground (-) are 13.0 to 13.5Vdc.
5. Select item no. "29" and set data value to "0".

### PC-OFFSET ADJUSTMENT

1. Receive the 16-step gray scale computer signal.
2. Set to **COMPUTER** mode.

### [R-OFFSET ADJUSTMENT]

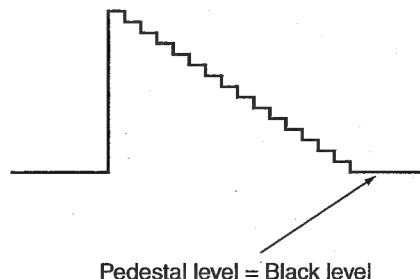
3. Connect an oscilloscope to test point "TP2212R" (+) and chassis ground (-).
4. Enter to the service mode, select item no. "275" and change data value to adjust the pedestal level and black level to be same level.

### [G-OFFSET ADJUSTMENT]

5. Connect an oscilloscope to test point "TP2222G" (+) and chassis ground (-).
6. Select item no. "276" and change data value to adjust the pedestal level and black level to be same level.

### [B-OFFSET ADJUSTMENT]

7. Connect an oscilloscope to test point "TP2232B" (+) and chassis ground (-).
8. Select item no. "277" and change data value to adjust the pedestal level and black level to be same level.



### PC GAIN ADJUSTMENT

1. Receive the 16-step grey scale computer signal.
2. Set to **COMPUTER** mode.

#### [PC-R GAIN ADJUSTMENT]

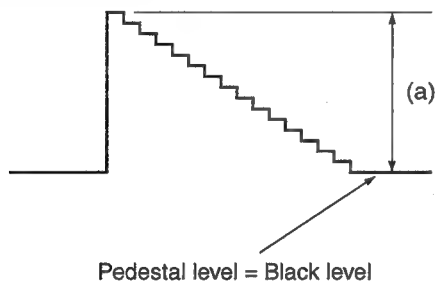
3. Connect an oscilloscope to test point "TP2212R" (+) and chassis ground (-).
4. Enter to the service mode, select item no. "30" and change data value to adjust "a" to be  $1.13 \pm 0.01\text{Vp-p}$ .

#### [PC-G GAIN ADJUSTMENT]

5. Connect an oscilloscope to test point "TP2222G" (+) and chassis ground (-).
6. Select item no. "273" and change data value to adjust "a" to be  $1.13 \pm 0.01\text{Vp-p}$ .

#### [PC-B GAIN ADJUSTMENT]

7. Connect an oscilloscope to test point "TP2232B" (+) and chassis ground (-).
8. Select item no. "274" and change data value to adjust "a" to be  $1.13 \pm 0.01\text{Vp-p}$ .



### COMPONENT GAIN ADJUSTMENT

1. Receive the 16-step grey scale component video signal.
2. Set to **VIDEO** (Component) mode.

#### [COMPONENT-R GAIN ADJUSTMENT]

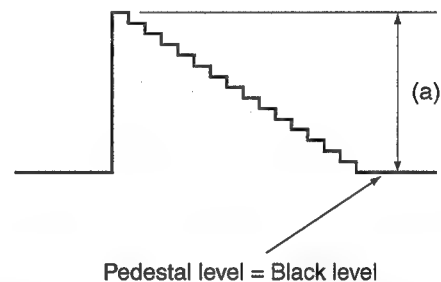
3. Connect an oscilloscope to test point "TP2212R" (+) and chassis ground (-).
4. Enter to the service mode, select item no. "30" and change data value to adjust "a" to be  $1.05 \pm 0.01\text{Vp-p}$ .

#### [COMPONENT-G GAIN ADJUSTMENT]

5. Connect an oscilloscope to test point "TP2222G" (+) and chassis ground (-).
6. Select item no. "273" and change data value to adjust "a" to be  $1.05 \pm 0.01\text{Vp-p}$ .

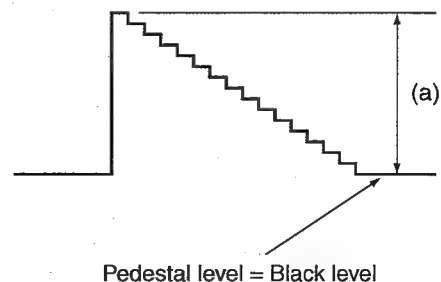
#### [COMPONENT-B GAIN ADJUSTMENT]

7. Connect an oscilloscope to test point "TP2232B" (+) and chassis ground (-).
8. Select item no. "274" and change data value to adjust "a" to be  $1.05 \pm 0.01\text{Vp-p}$ .



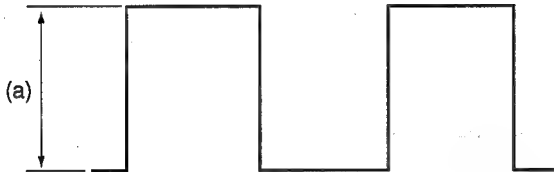
### AV GAIN ADJUSTMENT

1. Receive the 16-step grey scale video signal.
2. Set to **VIDEO** mode.
3. Connect an oscilloscope to test point "TP2222G" (+) and chassis ground (-).
4. Enter to the service mode, select item no. "30" and change data value to adjust "a" to be  $1.05 \pm 0.01\text{Vp-p}$ .



### NRS ADJUSTMENT

1. Receive the 16-step grey scale computer signal.
2. Set to **COMPUTER** mode.
3. Connect an oscilloscope to test point "TP3581" (+) and chassis ground (-).
4. Adjust "a" to be  $5.0 \pm 0.1V$  by using VR3561.



### SIGNAL CENTER ADJUSTMENT

#### Presetting

1. Receive the 16-step grey scale computer signal.
2. Set to **COMPUTER** mode.

#### [R-SIGNAL CENTER ADJUSTMENT]

3. Connect a digital voltmeter to test point "TP511" (+) and chassis ground (-).
4. Adjust voltage to be  $7.30 \pm 0.05V$  by using VR521.

#### [G-SIGNAL CENTER ADJUSTMENT]

5. Connect a digital voltmeter to test point "TP512" (+) and chassis ground (-).
6. Adjust voltage to be  $7.30 \pm 0.05V$  by using VR551.

#### [B-SIGNAL CENTER ADJUSTMENT]

7. Connect a digital voltmeter to test point "TP513" (+) and chassis ground (-).
8. Adjust voltage to be  $7.30 \pm 0.05V$  by using VR581.

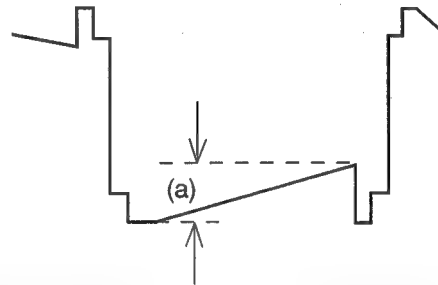
### PC/AV GAMMA OFF ADJUSTMENT

#### PC-GAMMA OFF ADJUSTMENT

1. Receive the 16-step gray scale computer signal.
2. Set to **COMPUTER** mode.
3. Connect an oscilloscope to test point "TP512" (+) and chassis ground (-).
4. Enter to the service mode, select item no. "0" and change data value to adjust "a" to be  $1.60 \pm 0.01Vp-p$ .

#### [AV-GAMMA OFF ADJUSTMENT]

5. Receive the 16-step gray scale video signal.
6. Set to **VIDEO** mode.
7. Connect an oscilloscope to test point "TP512" (+) and chassis ground (-).
8. Enter to the service mode, select item no. "0" and change data value to adjust "a" to be  $1.75 \pm 0.01Vp-p$ .



**\* This adjustment should be carried out before adjusting PC/AV-VIDEO ADJUSTMENT-1 and 2.**

### PC/AV-VIDEO ADJUSTMENT-1

#### Presetting

1. Input the 16-step gray scale video signal and computer signal.

#### [PC/AV-VIDEO ADJUSTMENT]

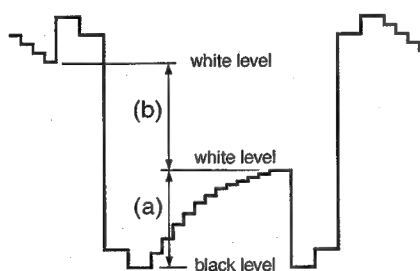
2. Connect an oscilloscope to test point "TP512" (+) and chassis ground (-).
3. Enter to the service mode, select item no. "15" and change data value to adjust "b" to be  $1.8 \pm 0.01V_{p-p}$  at each **VIDEO** and **COMPUTER** mode.
4. Select **COMPUTER** mode, select item no. "12" and change data value to adjust "a" to be  $3.90 \pm 0.01V_{p-p}$ .
5. Select **VIDEO** mode, select item no. "12" and change data value to adjust "a" to be  $4.00 \pm 0.01V_{p-p}$ .

#### [R-VIDEO ADJUSTMENT]

6. Connect an oscilloscope to test point "TP511" (+) and chassis ground (-).
7. Enter to the service mode and select **COMPUTER** mode.
8. Select item no. "13" and change data value to adjust "a" to be  $3.90 \pm 0.01V_{p-p}$ .
9. Select **VIDEO** mode and item no. "13" and change data value to adjust "a" to be  $4.00 \pm 0.01V_{p-p}$ .

#### [B-VIDEO ADJUSTMENT]

10. Connect an oscilloscope to test point "TP513" (+) and chassis ground (-).
11. Enter to the service mode and select **COMPUTER** mode.
12. Select item no. "14" and change data value to adjust "a" to be  $3.90 \pm 0.01V_{p-p}$ .
13. Select **VIDEO** mode and item no. "14" and change data value to adjust "a" to be  $4.00 \pm 0.01V_{p-p}$ .



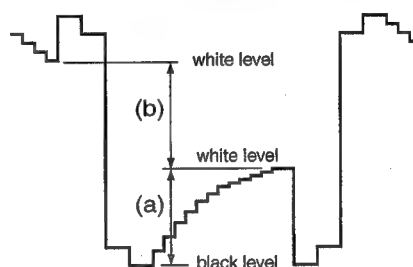
### PC/AV-VIDEO ADJUSTMENT-2

#### [PC-VIDEO ADJUSTMENT-2]

1. Receive the 16-step gray scale computer signal.
2. Set to **COMPUTER** mode.
3. Connect an oscilloscope to test point "TP512" (+) and chassis ground (-).
4. Enter to the service mode, select item no. "15" and change data value to adjust "b" to be  $1.90 \pm 0.01V_{p-p}$ .

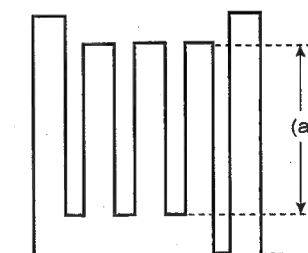
#### [AV-VIDEO ADJUSTMENT-2]

9. Receive the 16-step gray scale video signal.
10. Set to **VIDEO** mode.
11. Connect an oscilloscope to test point "TP512" (+) and chassis ground (-).
12. Enter to the service mode, select item no. "15" and change data value to adjust "b" to be  $2.10 \pm 0.01V_{p-p}$ .



### S/H CLOCK ADJUSTMENT

1. Receive the 16-step gray scale computer signal.
2. Set to **COMPUTER** mode.
3. Connect an oscilloscope to test point "TP512" (+) and chassis ground (-).
4. Enter to the service mode, select item no. "3" and change data value to adjust "a" to be maximum.



### COMMON CENTER ADJUSTMENT

1. Receive the 1 dot line computer signal.
2. Set to **COMPUTER** mode.

### [R-COMMON CENTER ADJUSTMENT]

3. Cover the G and B panel to block the light transit.
4. Adjust VR2561 to obtain the minimum flicker on the picture.

### [G-COMMON CENTER ADJUSTMENT]

5. Cover the R and B panel to block the light transit.
6. Adjust VR2571 to obtain the minimum flicker on the picture.

### [B-COMMON CENTER ADJUSTMENT]

7. Cover the G and R panel to block the light transit.
8. Adjust VR2581 to obtain the minimum flicker on the picture.

### WHITE BALANCE ADJUSTMENT

#### [PC WHITE BALANCE ADJUSTMENT]

1. Receive the 16-step grey scale computer signal.
2. Set to **COMPUTER** mode.
3. Enter to the service mode, select item no. "16" (Red) or "17" (Blue), and change data values respectively to make a proper white balance.

#### [AV WHITE BALANCE ADJUSTMENT]

4. Receive the 16-step grey scale video signal.
5. Set to **VIDEO** mode.
6. Select item no. "16" (Red) or "17" (Blue), and change data values respectively to make a proper white balance.

#### [COMPONENT WHITE BALANCE ADJUSTMENT]

7. Receive the 16-step grey scale component video signal.
8. Set to **VIDEO** (Component) mode.
9. Select item no. "16" (Red) or "17" (Blue), and change data values respectively to make a proper white balance.

Confirm that the same white balance is obtained in video, computer and component input.

### BLACK BALANCE ADJUSTMENT

#### [PC BLACK BALANCE ADJUSTMENT]

1. Receive the 16-step grey scale computer signal.
2. Set to **COMPUTER** mode.
3. Enter to the service mode, select item no. "9" (Red) or "10" (Blue), and change data values respectively to make a proper white balance at darker portion of the screen.

#### [AV BLACK BALANCE ADJUSTMENT]

4. Receive the 16-step grey scale video signal.
5. Set to **VIDEO** mode.
6. Select item no. "9" (Red) or "10" (Blue), and change data values respectively to make a proper white balance at darker portion of the screen.

#### [AV BLACK BALANCE ADJUSTMENT]

7. Receive the 16-step grey scale component video signal.
8. Set to **VIDEO** (Component) mode.
9. Select item no. "9" (Red) or "10" (Blue), and change data values respectively to make a proper white balance at darker portion of the screen.

Confirm that the same white balance is obtained at darker portion of the screen in video, computer and component input.

### NOTE ON WHITE UNIFORMITY ADJUSTMENT

If you find the color shading, please adjust the white uniformity by using the proper computer and "Color Shading Correction" software supplied separately. The software can be ordered as follows;

#### COLOR SHADING CORRECTION (Ver. 2.0.2)

Service Parts No. 645 045 7272

## Electrical Adjustments

### ● Service Adjustment Data Table

These initial values are the reference data written from the CPU ROM to the memory IC when the new memory IC replaced. The adjustment items indicated with "\*" are required to readjust following to the "Electrical adjustments". Other items should be used with the initial data value.

No.	Adjustment Item	Initial Value			Range	Description
		PC	CV or S	Y/Cb/Cr		
0	RGB AMP (Gamma OFF) *	30	30		0 - 63	Same as No.1 of RGB AMP (Gamma ON)
1	RGB AMP (Gamma ON)	30	30			To up/down R/G/B of Gamma at same time system stop up/down, when R, G or B value reached Max or Min value.
2	S&H Test pattern display position	3			0 - 12	Test pattern display depend on setting value, test pattern move to right, 1 dot each by increasing data value.
3	GAMMA DLY CNT *	25			0 - 63	Display Green test pattern where Service No2 setting position.
4	GAMMA G BIAS	5			0 - 63	
5	Not used					
6	GAMMA R BIAS	5			0 - 63	
7	Not used					
8	GAMMA B BIAS	5			0 - 63	
9	GAMMA R-B1P *	29	28	28	0 - 63	White balance adjustment of Black portion in AV mode for Red
10	GAMMA B-B1P *	29	28	28	0 - 63	White balance adjustment of Black portion in AV mode for Blue
11	GAMMA G-B1P *	29	28	28	0 - 63	White balance adjustment of Black portion in AV mode for Green
12	DAC CLAMP LEVEL (SUB BRIGHT) *	30	30		0 - 63	Sub-Bright (refer to DAC IC Control and User control spec)
13	GAMMA R GAIN *	30	30		0 - 63	
14	GAMMA B GAIN *	30	30		0 - 63	
15	DAC RGB BIAS *	50	50		0 - 125	G-Bias adjust value (refer to DAC IC Control and User control spec)
16	DAC R BIAS *	50	50	50	0 - 125	R-Bias adjust value (refer to DAC IC Control and User control spec)
17	DAC B BIAS *	50	50	50	0 - 125	B-Bias adjust value (refer to DAC IC Control and User control spec)
18	DAC RGB GAIN (SUB CONTRAST)	30	30		0 - 63	Sub-CONTR (refer to DAC IC Control and User control spec)
19	S&H B-CK	12			0 - 255	Display Blue test pattern where Service No2 setting position.
20	S&H G-CK	12			0 - 255	Display Green test pattern where Service No2 setting position.
21	S&H R-CK	12			0 - 255	Display Red test pattern where Service No2 setting position.
22	Setting for Shoot out mode	0			0 - 2	0: Normal/ 1: Shoot out1/ 2: Shoot out2
23	Serial baud rate setting	1			0 - 2	0: 9600/ 1: 19200/ 2: 38400
24	Lamp life time display	0				Read Only
25	S&H HCK PHASE adjust	4			0 - 15	Display Green test pattern where Service No2 setting position.
26	GAMMA R_WHP	57	57	57	0 - 63	
27	GAMMA G_WHP	57	57	57	0 - 63	
28	GAMMA B_WHP	57	57	57	0 - 63	
29	Fan Control *	0			0 or 1	Fans control for high land, control FAN_CONT1/FAN_CONT2. 0 : automatic, 1 : Forced High speed
30	D/A gain *	128	128	128	0 - 255	
		NTSC PAL				
36	VD Analog Cont3(CV)	72			0 - 255	
37	VD Analog Cont4	0			0 - 255	
42	VD Bright	148	130		0 - 255	
43	VD Contrast	68	68		0 - 255	
64	VD Analog Cont3(S-Video)	72			0 - 255	
		PC Y/Cb/Cr				
272	REDGAIN	96	96		0 - 255	
273	GRNGAIN *	96	96		0 - 255	
274	BLUGAIN *	96	96		0 - 255	
275	REDOFST *	32			0 - 63	
276	GRNOFST *	32			0 - 63	
277	BLUOFST *	32			0 - 63	
278	CLDUR	-	-		0 - 255	
279	CLPLACE	-	-		0 - 255	



## Electrical Adjustments

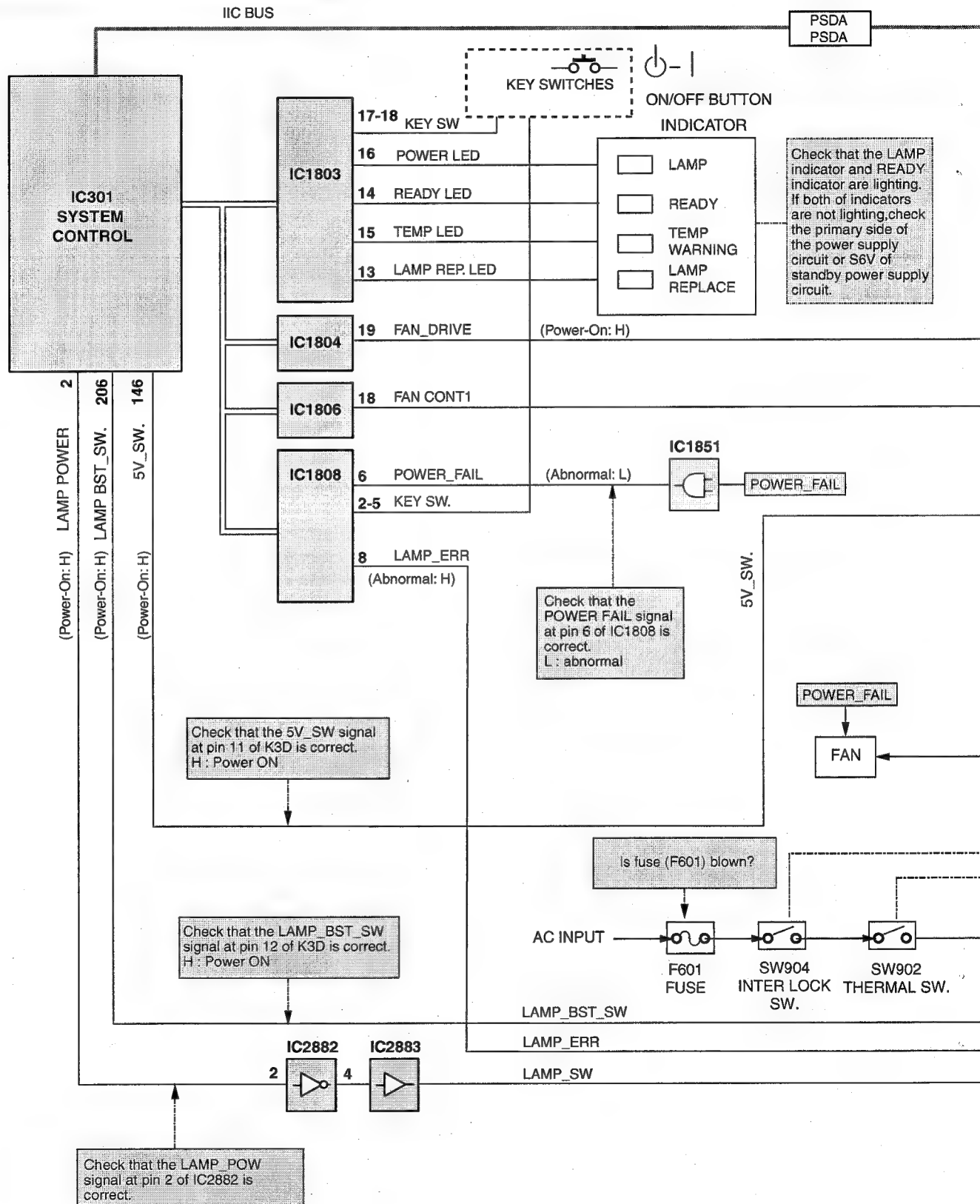
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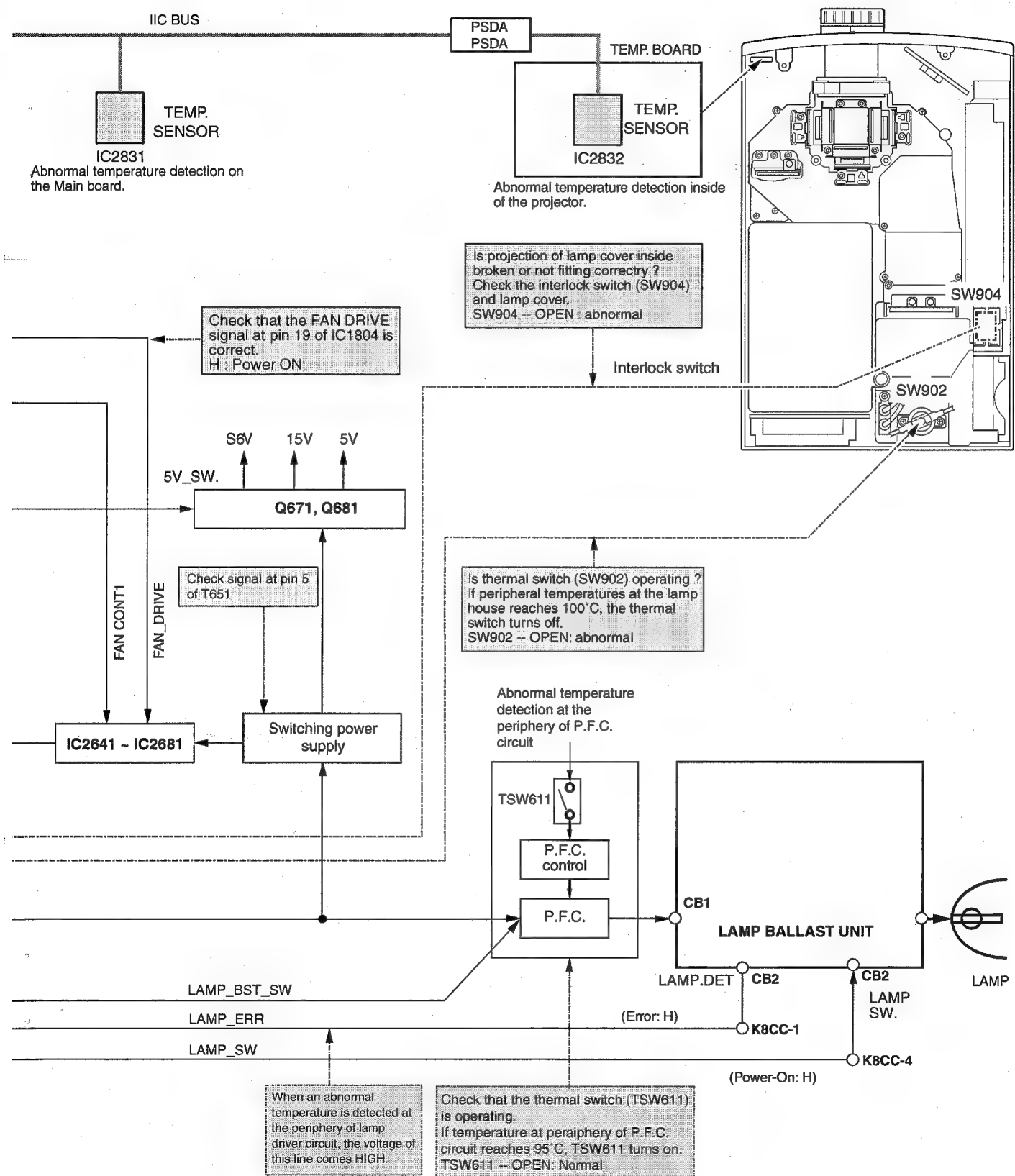
# Troubleshooting

## NO POWER

Refer to next page



## Troubleshooting



## NO POWER

### PERIPHERY OF CHASSIS

1. Is fuse (F601) blown?  
Fuse may be opened when either the LAMP indicator or the READY indicator isn't illuminated. Check the fuse.  
● For continued safety, replace with a fuse of the same type.  
TYPE T4.0AH 250V FUSE. (LITTLE FUSE INC. TYPE 215004)
2. Is projection of lamp cover inside broken or not fitting?  
Check the INTER LOCK switch(SW904) and lamp cover.  
SW904 ..... OPEN : abnormal
3. Is thermal switch(SW902) operating?  
If temperatures periphery of lamp house reaches 100°C, the thermal switch will be turned off automatically.  
SW902 ..... OPEN : abnormal
4. Is the WARNING TEMP. indicator flashing ? The thermal sensor IC (IC2832) on the Temp. board or IC2831 on the main board may detect the abnormal temperature inside of the projector. If one of these ICs detects the abnormal temperature, this projector will be turned off automatically.

### POWER BOARD

1. Are the LAMP indicator(red) and READY indicator(green) light?  
If the LAMP and READY indicators do not illuminated, check the primary circuit and S6V of standby power supply circuit.
2. Check that the LAMP BST-SW signal is correct.  
Pin 12 of K6K ..... H : ON
3. Check that the 5V\_SW signal is correct.  
Pin 11 of K6K ..... H : ON
4. Check that the POWER FAIL signal is correct.  
Pin 13 of K6K ..... L : abnormal
5. Is thermal switch(TSW611) operating?  
If temperatures periphery of P.F.C. circuit reaches 95°C, the thermal switch will be turned on automatically.  
TSW611 ..... SHORT : abnormal
6. Check the signal at pin 5 of T651. (Switching power IC output signal)

### MAIN BOARD

1. Check that the 15.5V is observed at pins 1-3 of K3C.
2. Check that the 6V is observed at pins 6-8 of K3C.
3. Check that the -5V is observed at pin 9 of K3C.
4. Check that the 5V is observed at pins 10-11 of K3C.
5. Check that the 6V is observed at pins 2-4 of K3D.
6. Check that the 15.5V is observed at pins 7-8 of K3D.
7. Check that the 5V\_SW signal is correct.  
Pin 11 of K3D ..... H : ON
8. Check that the LAMP BST\_SW signal is correct.  
Pin 12 of K3D ..... H : ON
9. Check that the POWER FAIL signal is correct.  
Pin 13 of K3D ..... L : abnormal
10. Check that the 12V is observed at test points TP6101, TP6102 and TP6103.
11. Check that the LAMP\_SW signal is correct.  
Pin 4 of K8CC ..... H : On
12. Check that the LAMP\_ERR signal is correct.  
Pin 1 of K8CC ..... L : On
13. Check that the POWER FAIL signal is correct.  
Pin 2 of IC1851 ..... L : abnormal
14. Check that the Sensor IC(IC2831) detects abnormal temperature inside the projector.

### COMPONENT BOARD

1. Check Power Supply and switching circuit  
Check ICs IC2641 to IC2691
2. Check that the POWER FAIL signal is correct.  
Pin 11-12 of K3A ..... L : abnormal
3. Check that the FAN\_DRIVE signal is correct.  
Pin 7-8 of K3A ..... H : On

## NO PICTURE

### AV BOARD

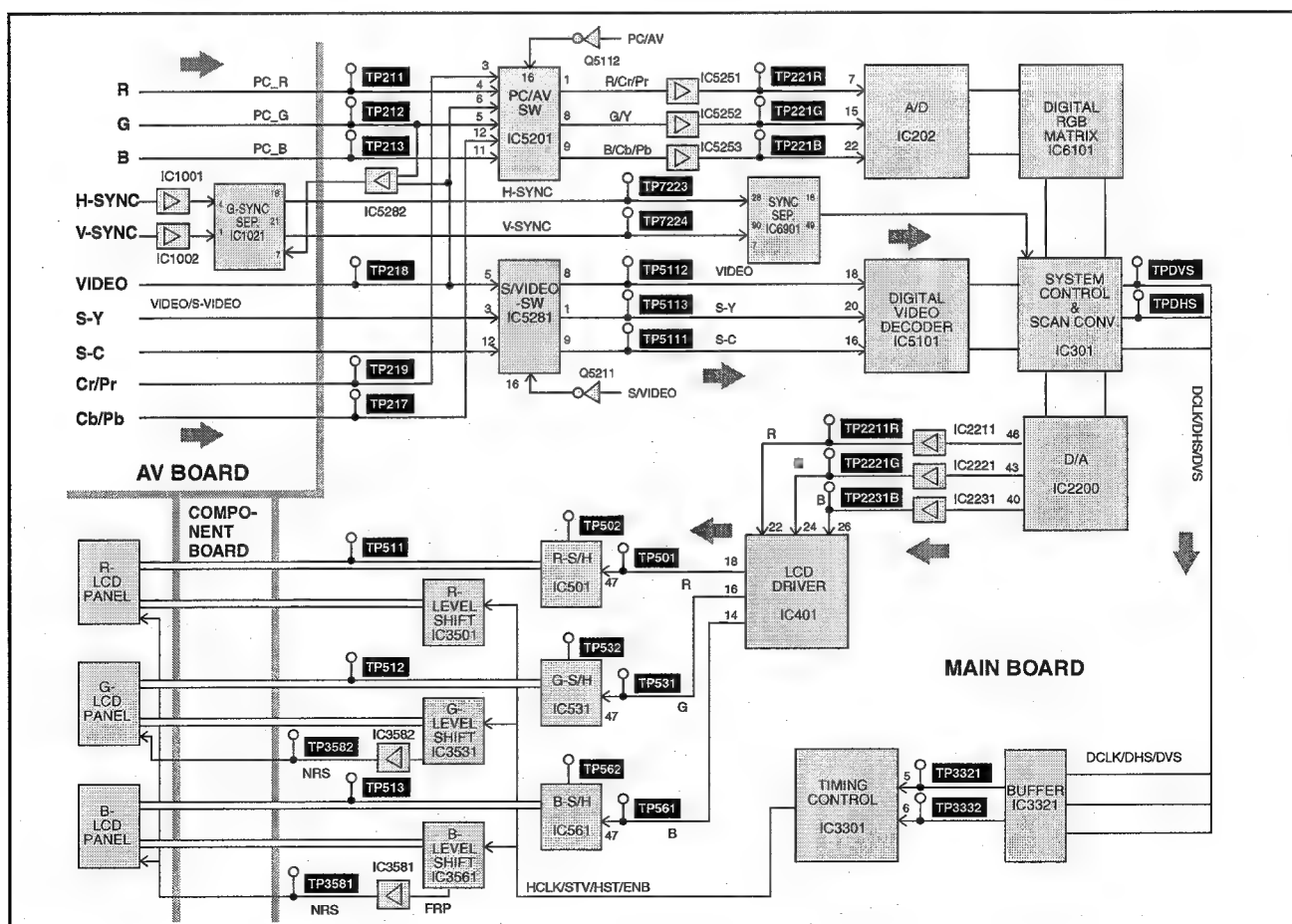
1. Check that the Vcc-voltages(+5V, -5V) are applied to AV circuits.  
Pins 47-50 of K10A, Pins 47-54 of K10B .....5V  
Pins 39-42 of K10B .....-5V  
Check IC1001, IC1002 and IC1021.
2. Check that the following input signals are observed correctly.

SIGNAL	K10A-pin No.	K50A-pin No.
V-Sync	17-18	17-18
H-Sync	15-16	15-16
B	11-12	11-12
G	9-10	9-10
R	7-8	7-8
Video	33-34	33-34
S-C	29-30	29-30
S-Y	25-26	25-26

### MAIN BOARD

1. Check the signals at following test points.  
- Video signal at TP208, TP218  
- V-sync signal at TP7224  
- H-sync signal at TP7223

2. Check that the PC/AV switching signal is correct.  
Pin 16 of IC5201 .....AV: H, PC: L  
Pin 5 of IC5282 .....AV: H, PC: L
3. Check that the RGB signals are observed at following test points.  
TP211, TP221R, TP2211R .....R-signal  
TP212, TP221G, TP2221G .....G-signal  
TP213, TP221B, TP2231B .....B-signal
4. Check that the signals are observed at following test points.  
TPDHS, TP3322 .....V-Sync,  
TPDVS, TP3321 .....H-Sync
5. Check that the S/H signals are observed at following test points.  
TP501, TP511 .....R-signal  
TP531, TP512 .....G-signal  
TP561, TP513 .....B-signal
6. Check that the NRS signals are observed at test points TP3581 and TP3582.



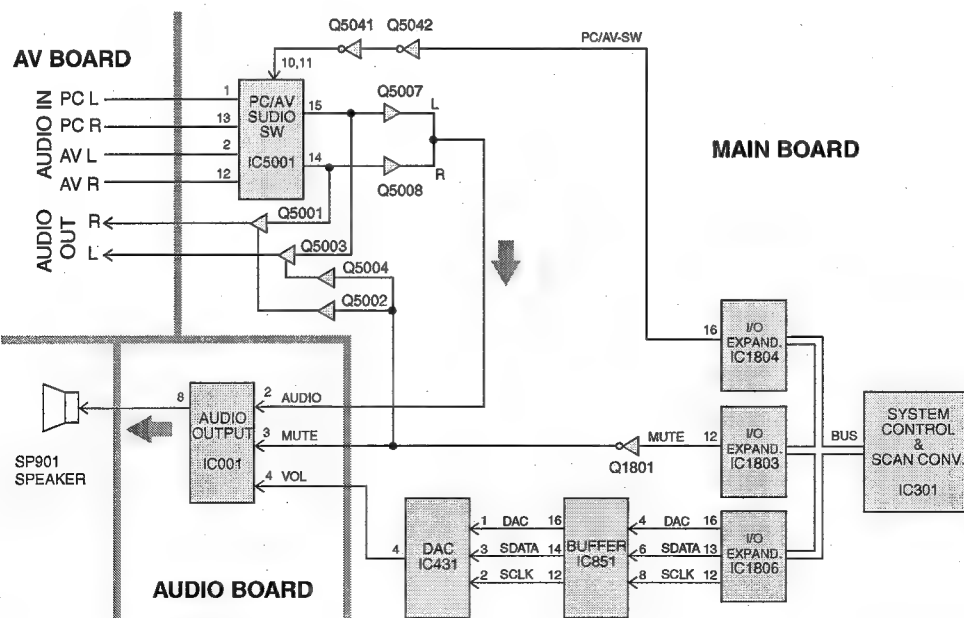
## NO SOUND

### MAIN BOARD

1. Check that the PC/AV switching signal is correct.  
Pins 10 and 11 of IC5001 ..... AV : L  
PC : H
2. Check that audio signal is observed at following points.  
Pins 11-12(PC)/13-14(AV) of K10B/K50B
3. Check that the MUTE signal is correct.  
Pin 5 of K5A ..... Mute-On: H
4. Check that the MUTE signal is correct.  
Pin 12 of IC1803 ..... Mute-On: L
5. Check that the PC/AV switching signal is correct.  
Pin 16 of IC1804 ..... AV : L  
PC : H

### AUDIO BOARD

1. Check that sound volume control signal is correct.  
Pin 4 of IC001
2. Check that audio signal is observed at pin 2 of IC001.
3. Check the MUTE signal at pin 3 of IC001.  
Pin 3 of IC001 ..... Mute-On: H
4. Check that Vcc-voltage(+12V) is applied at pins 1 and 9 of IC001.



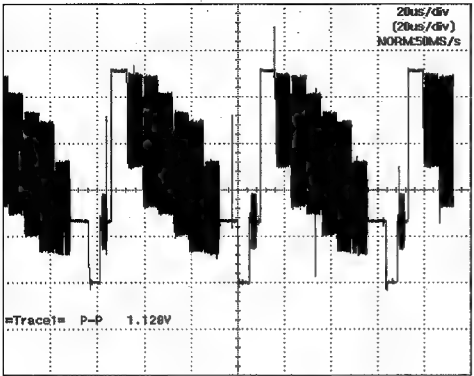
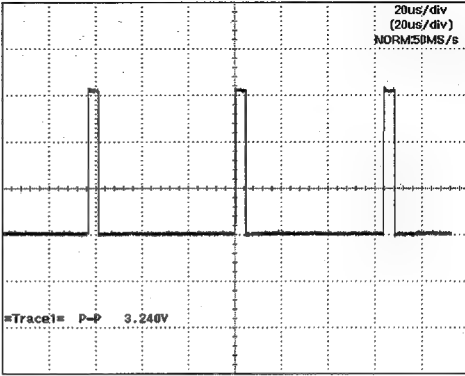
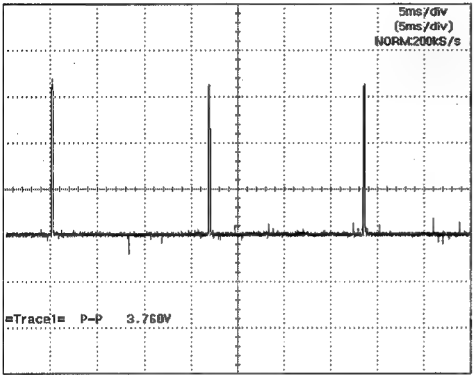
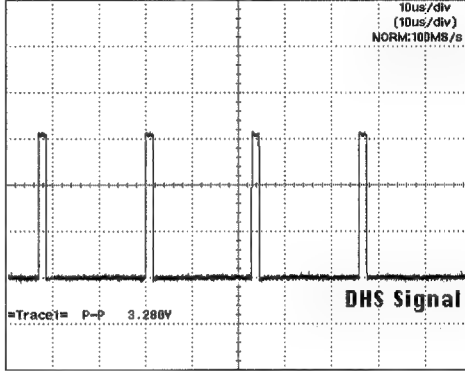
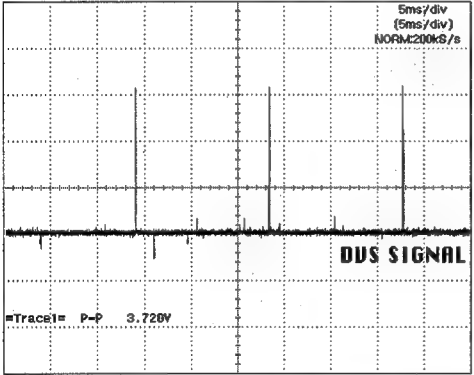
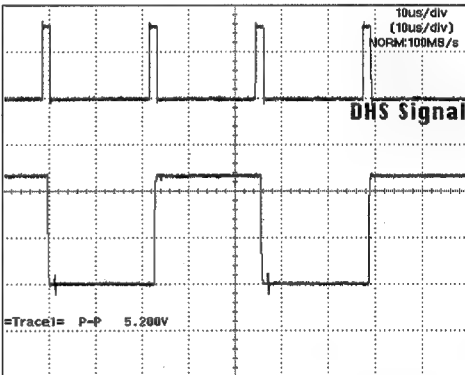
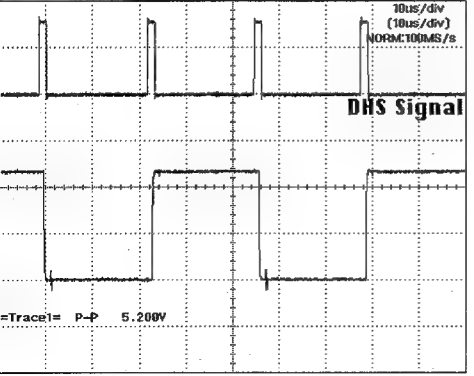
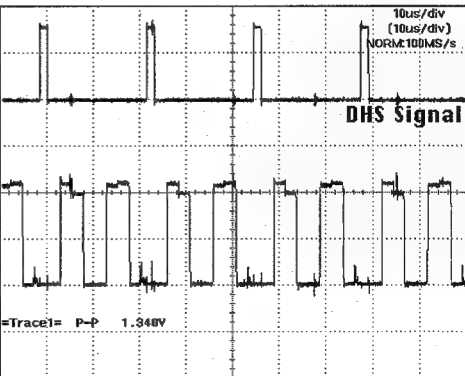


## ■ Control Port Functions

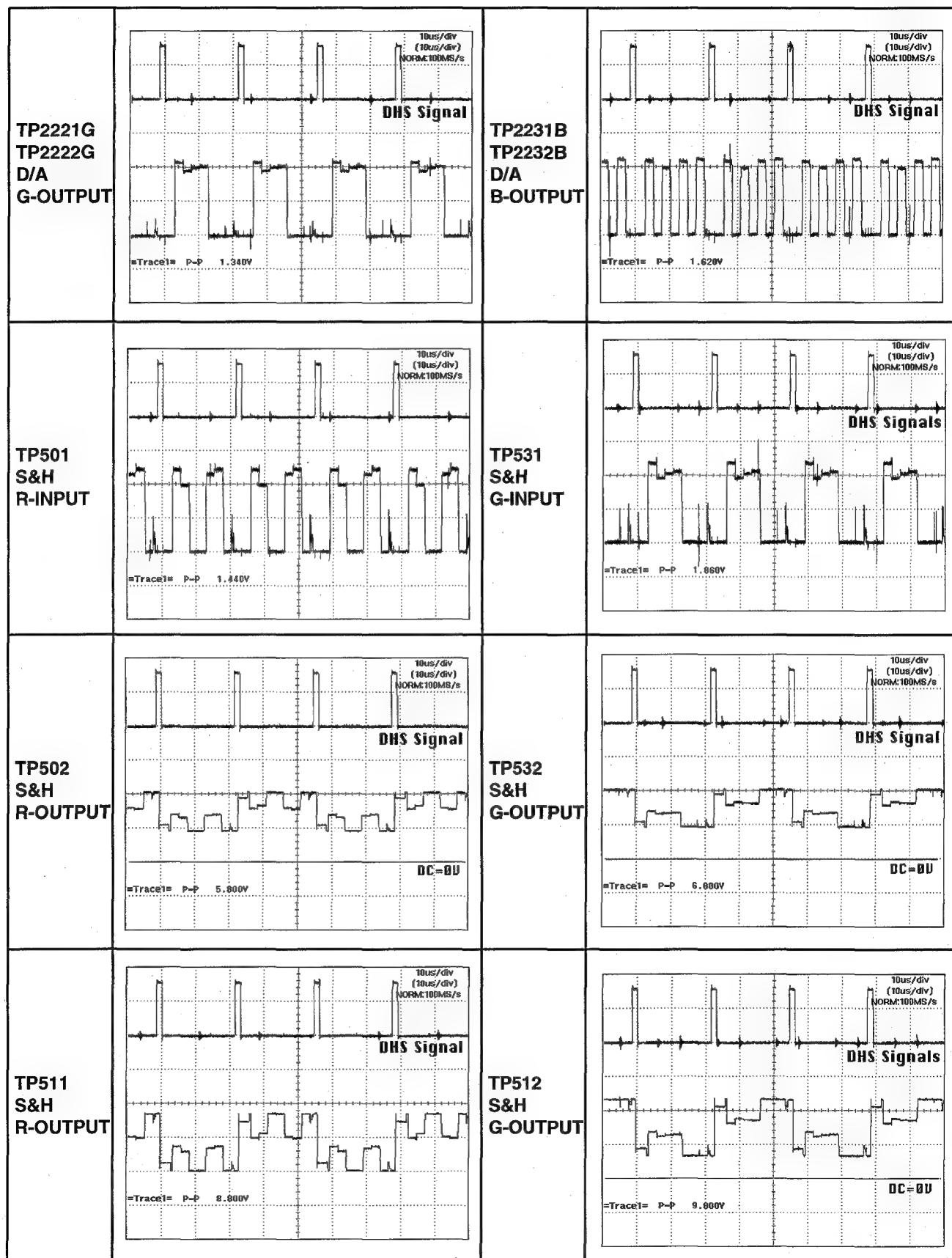
### ● System Control & I/O Port Functions

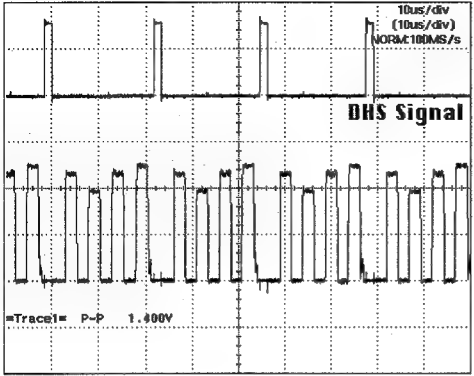
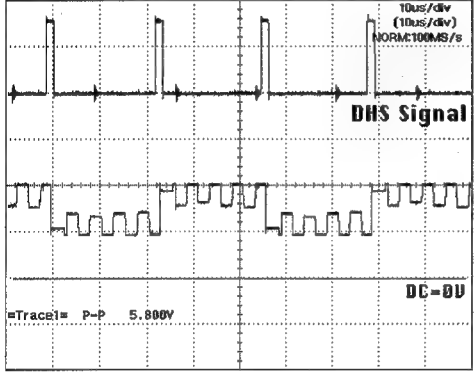
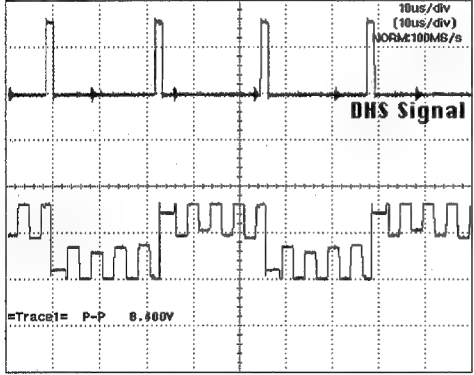
IC Ref. No	Pin/Name	I/O	Signal Name	Function	Note
IC301	PortA0	I/O	ROMWEL	For ICE	
	PortA1	I/O	ROMWEH	For ICE	
	PortA2	I/O	BOOTWE	For ICE	
	PortA3	I/O	Not used	Fixed High	
	PortA4	O	5V_SW	Power ON/OFF	MainPower-ON: High
	PortA5	O	LAMP_BST_SW	Lamp Ballast ON/OFF	Lamp Ballast-ON: High
	PortA6	O	IO_Reset	Initialize I/O	I/O Active: Low
	PortA7	O	LAMP_POW	Lamp-ON	Lamp-ON: High
	PortB0	I/O	3L_EN	3-Line Serial ON/OFF	Serial Line-ON: Low
	PortB1	I/O	PortB1	MatrixSDA	
	PortB2	I/O	Mouse1	Mouse Control	Air Mouse-ON: High
	PortB3	I/O	Not used	Fixed High	
	PortB4	I/O	SCL_IN	Fixed High	
	PortB5	I/O	Not used	Fixed High	
IC1803	12	O	Mute	Mute	Mute-OFF: High
	13	O	LAMP_REP_LED	Lamp Replace LED Drive	ON: High
	14	O	READY_LED	Ready LED Drive	ON: High
	15	O	TEMP_LED	Temp Warning LED Drive	ON: High
	16	O	POW_LED	Power LED Drive	ON: High
	17	O	KO3	Main Key Switch	
	18	O	KO2	Main Key Switch	
IC1804	19	O	KO1	Main Key Switch	
	12	O	CG_Filter	CG Filter ON/OFF	ON: High
	13	O	VHDREN	Philips chip Enable	ON: High
	14	O	VFIELD_SW	VField PC/AV Selection	Video V Field: High
	15	O	Y/G_SW	Sync Sep. Y/G Selection	Y: High G: Low
	16	O	PC/AV_SW	PC/AV Selection	PC: High AV: Low
	17	O	S/CV_SW	Video/Component Selection	Video: Low Component: High
IC1806	18	O	PeriPow_SW	Power consumption SW in ST	Normal: High Standby: Low
	19	O	FanDrive_SW	Fan Drive ON/OFF	Fan Drive ON: High OFF: Low
	12	O	SCLK	3-Line Serial Clock	
	13	O	SDATA	3-Line Serial Data	
	14	O	DAC_STLOBE	DAC	Data Effective: Low
	15	O	S&H_STLOBE	S&H	Data Effective: High
	16	O	IRM_STLOBE	White Uniformity	Data Effective: Low
IC1807	17	O	FAN_CONT2	Digital Pot.Chip Enable	Data Effective: Low
	18	O	FAN_CONT1	Fan Voltage Enable	Fan Control ON: High
	19	O	Not used		
	12	O	Not used		
	13	O	DVS2	Vsync x 2Hz Output	
	14	O	LAMP_ON	Output Clock ON/OFF	Output Clock ON: High
	15	O	LIM-OFF		
IC1808	16	O	PWDN	For AD9884 Power Down	AD Power Down: High
	17	O	NYSE		
	18	O	CTS33	RS232C Relation	
	19	O	Not used		
	2	I	KI1	Main Key Switch	
	3	I	KI2	Main Key Switch	
	4	I	KI3	Main Key Switch	
IC1809	5	I	KI4	Main Key Switch	
	6	I	Power_fail	Power Fail Detection	Abnormal: Low Normal: High
	7	I	Not used		
	8	I	Lamp_ERR	Lamp Fail	Abnormal: Low Normal: High
	9	I	Not used		
	2	I	S_IN		
	3	I	CB_SW	Component	
IC1809	4	I	CR_SW	Component	
	5	I	CTS/V		
	6	I		OEM Option	
	7	I		OEM Option	
	8	I		OEM Option	
	9	I		SVGA/Video grade SW	SVGA: Low Video Grade: High

# Waveforms

<p>TP218 TP208 AV VIDEO</p>	 <p>#Trace1= P-P 1.128V</p>	<p>TP207 TP7223 AV H-SYNC</p>	 <p>#Trace1= P-P 3.248V</p>
<p>TP7224 AV V-SYNC</p>	 <p>#Trace1= P-P 3.760V</p>	<p>TPDHS TP3322 DHS</p>	 <p>#Trace1= P-P 3.280V</p> <p>DHS Signal</p>
<p>TPDVS TP3321 DVS</p>	 <p>#Trace1= P-P 3.720V</p> <p>DVS SIGNAL</p>	<p>TP3581 NRS for R/B</p>	 <p>#Trace1= P-P 5.200V</p> <p>DHS Signal</p>
<p>TP3582 NRS for G</p>	 <p>#Trace1= P-P 5.200V</p> <p>DHS Signal</p>	<p>TP2211R TP2212R D/A R-OUTPUT</p>	 <p>#Trace1= P-P 1.948V</p> <p>DHS Signal</p>

# Waveforms



<p>TP561 S&amp;H B-INPUT</p>	 <p>10us/div (10us/div) NORM:100MS/s</p> <p>DHS Signal</p> <p>Trace1= P-P 1.000V</p>		
<p>TP562 S&amp;H B-OUTPUT</p>	 <p>10us/div (10us/div) NORM:100MS/s</p> <p>DHS Signal</p> <p>Trace1= P-P 5.000V</p> <p>DC-BV</p>		
<p>TP513 S&amp;H B-OUTPUT</p>	 <p>10us/div (10us/div) NORM:100MS/s</p> <p>DHS Signal</p> <p>Trace1= P-P 8.000V</p>		

## ■ Cleaning

After long periods of use, dust and other particles will accumulate on the LCD panel, prism, mirror, polarized glass, lens, etc., causing the picture to darken or color to blur. If this occurs, clean the inside of optical unit.

Remove dust and other particles using air spray. If dirt cannot be removed by air spray, disassemble and clean the optical unit.

### Cleaning with air spray

1. Remove the cabinet top following to "Mechanical Disassemblies".
2. Clean up the LCD panel and polarizing plate by using the air spray from the cabinet top opening.

#### Caution:

Use a commercial (inert gas) air spray designed for cleaning camera and computer equipment. Use a resin-based nozzle only. Be very careful not to damage optical parts with the nozzle tip. Never use any kind of cleanser on the unit. Also, never use abrasive materials on the unit as this may cause irreparable damage.

### Disassembly Cleaning

Disassembly cleaning method should only be performed when the unit is considerable dirty and cannot be sufficiently cleaned by air spraying alone.

**Be sure to readjust the optical system after performing disassembly cleaning.**

1. Remove the cabinet top and main units following to "Mechanical Disassemblies".
2. Remove the optical base top following to "Optical Unit Disassemblies". If the LCD panel needs cleaning, remove the LCD panel unit following to "LCD panel replacement".
3. Clean the optical parts with a soft cloth. Clean extremely dirty areas using a cloth moistened with alcohol.

#### Caution:

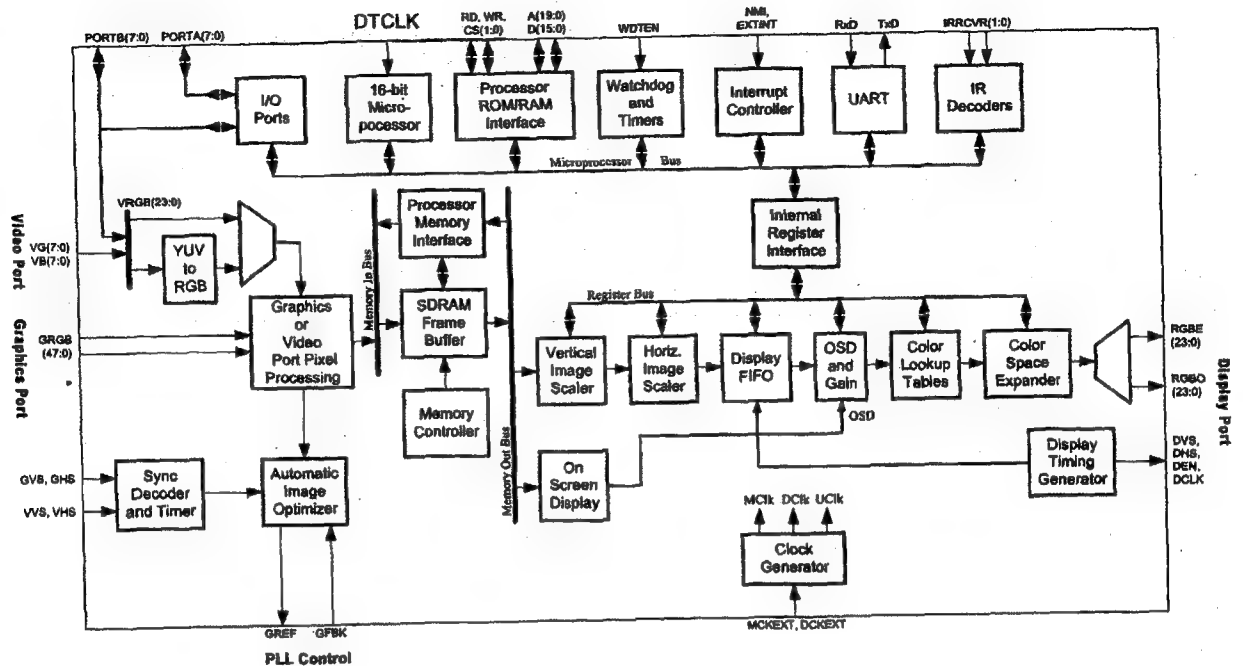
The surface of the optical components consists of multiple dielectric layers with varying degrees of refraction. Never use organic solvents (thinner, etc.) or any kind of cleanser on these components.

Since the LCD panel is equipped with an electronic circuit, never use any liquids (water, etc.) to clean the unit. Use of liquid may cause the unit to malfunction.

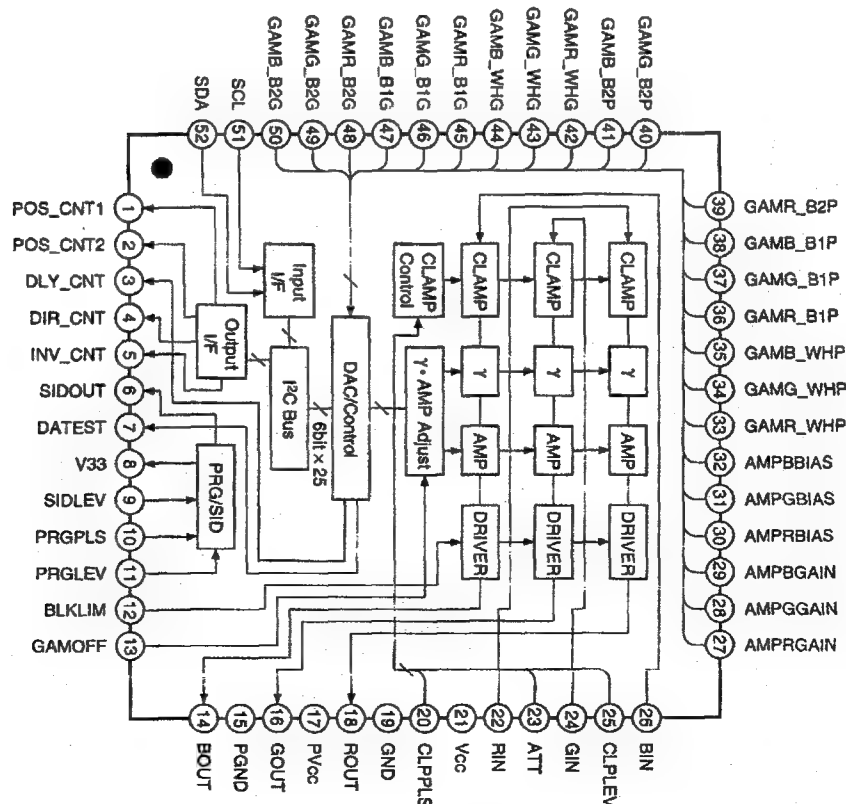
● AN5265 <AUDIO OUTPUT, IC001>



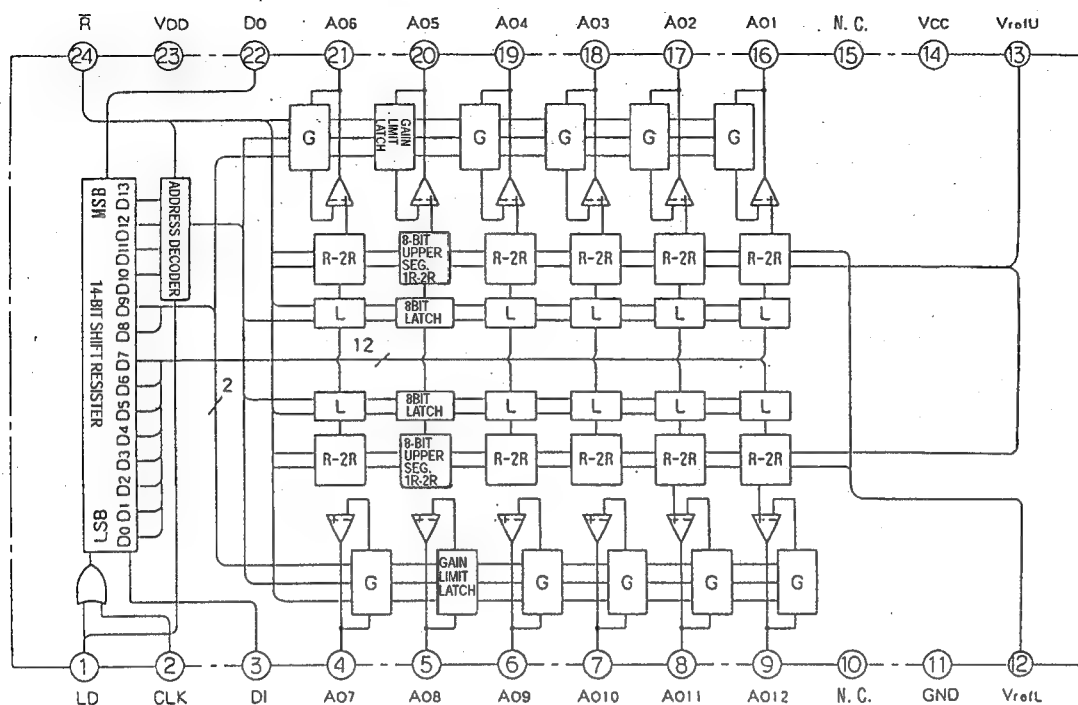
● PW164-10RK <System Control/Scan Converter, IC301>



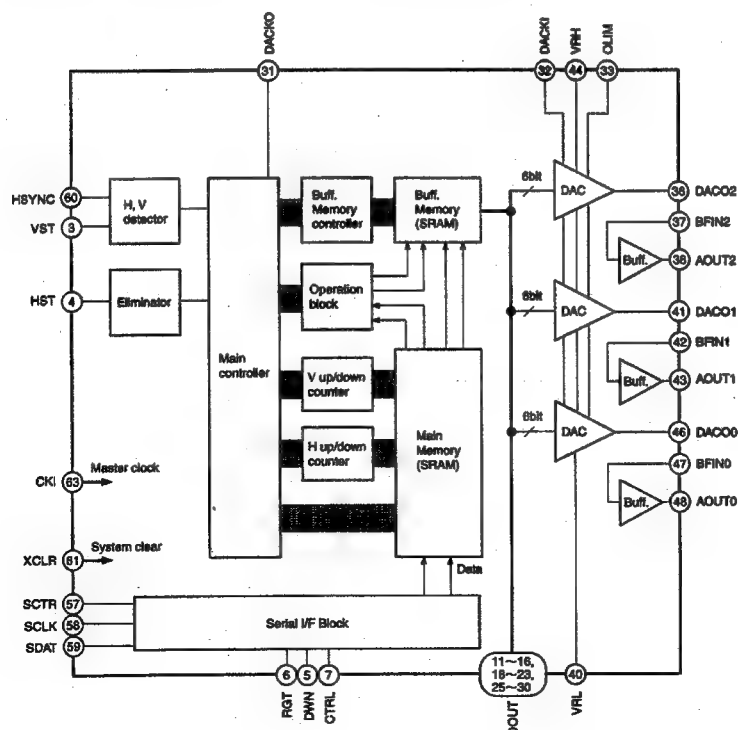
● CXA2111R <LCD Driver, IC401>



● M62358FP <DAC, IC431>

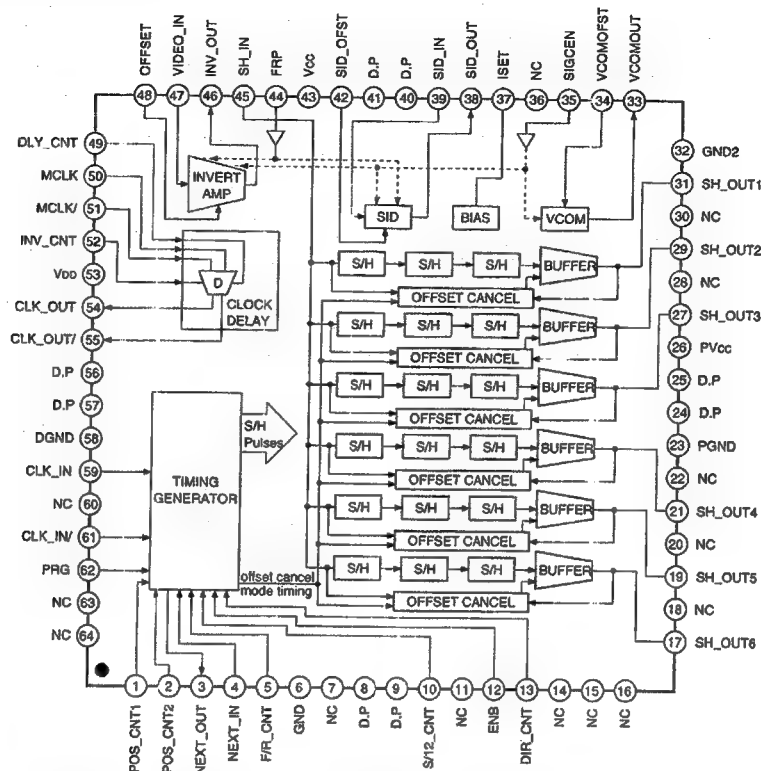


● CXD3503R <White Uniformity Compensation, IC471>

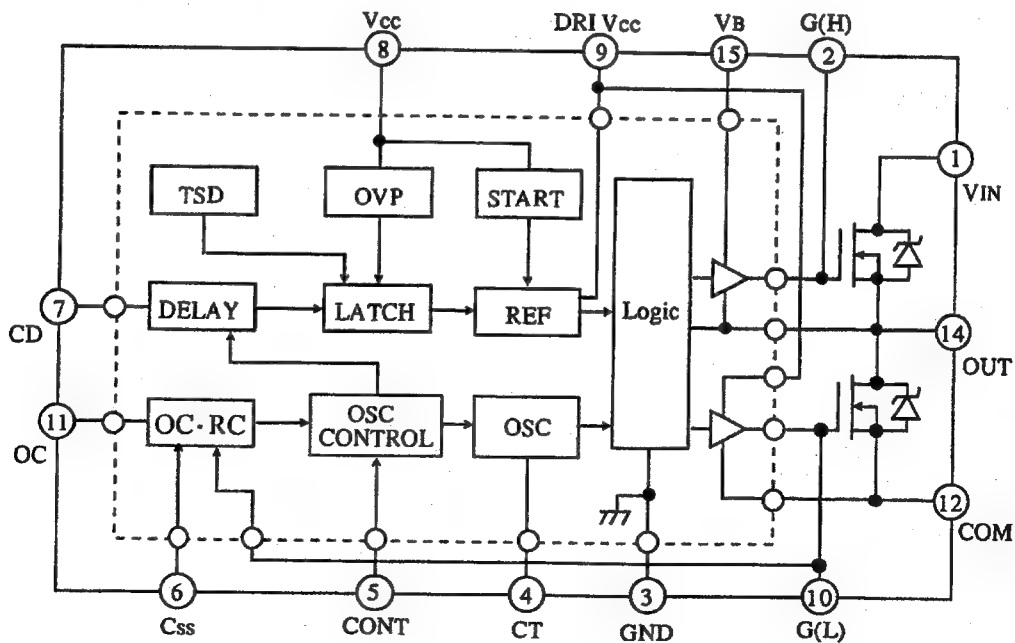




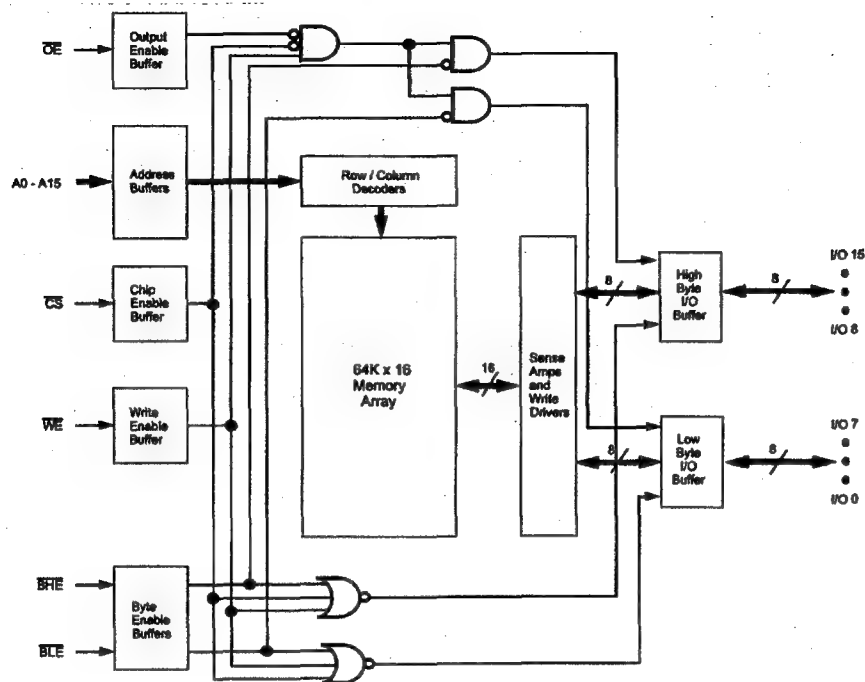
● CXA2112R <Sample & Hold, IC501, IC531, IC561>



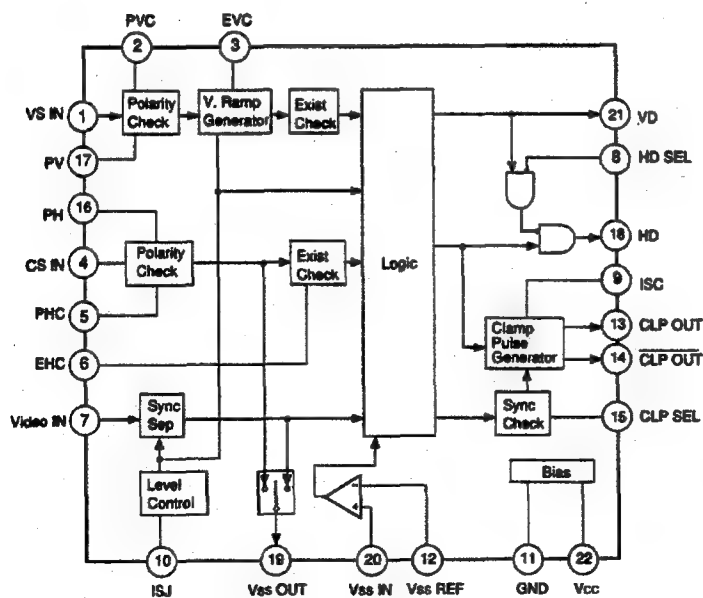
● STR-Z2156 <Power Switching Control, IC631>



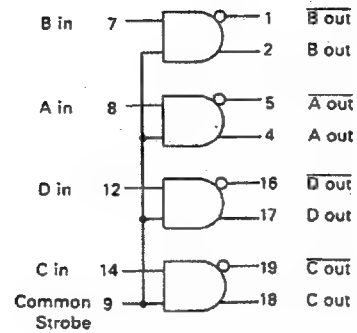
● IDT71V016S <RAM, IC811>



● CXA2016S <Sync Separator, IC1021>



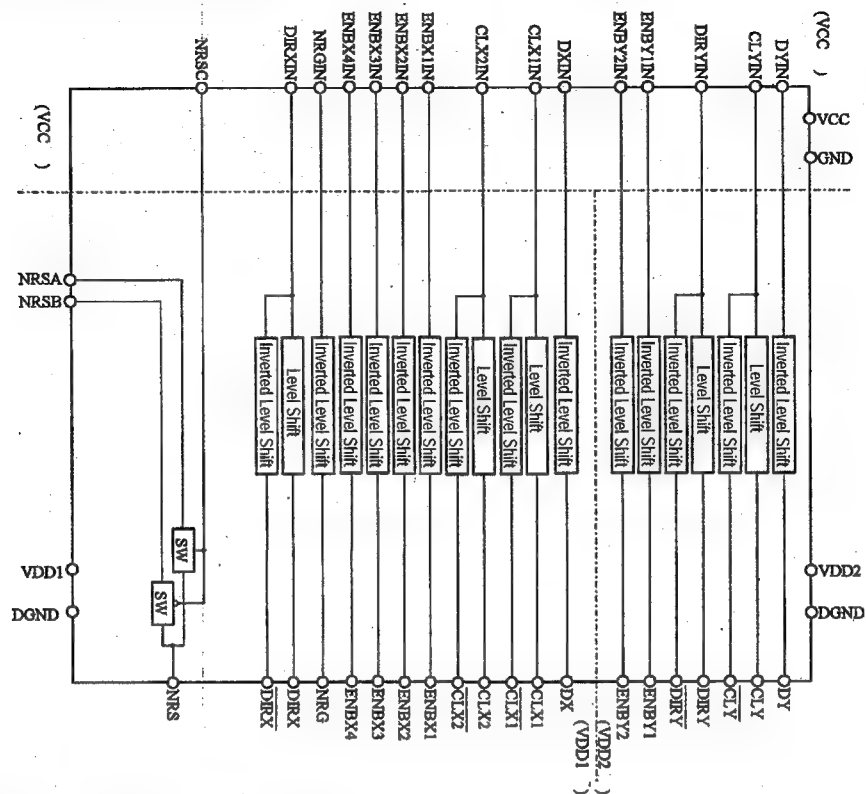
● MC10H351ML <IC1501>



● LM76CHMX <Thermal Sensor, IC1831, IC1832>

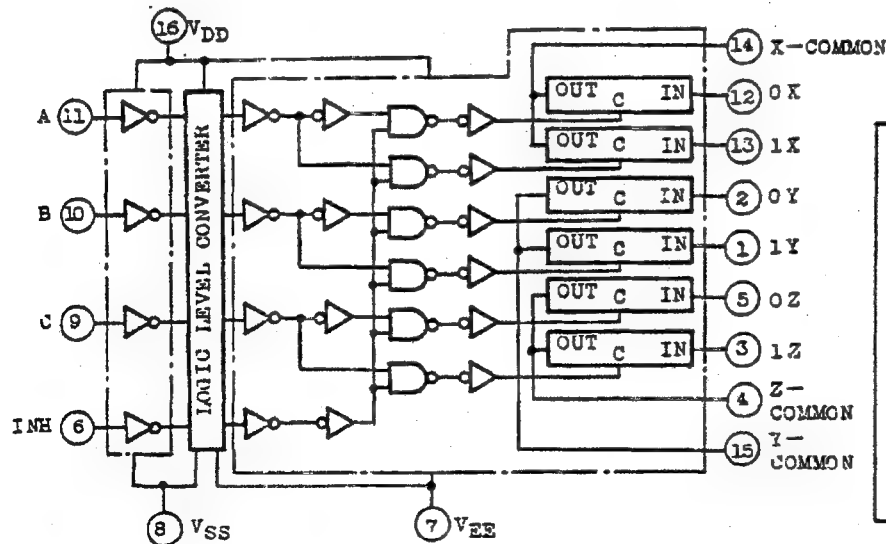


● ET1030F0A <Level Shift, IC3501, IC3531, IC3561>



● TC4053BF <Switching, IC5001>

TC4053BF/BF

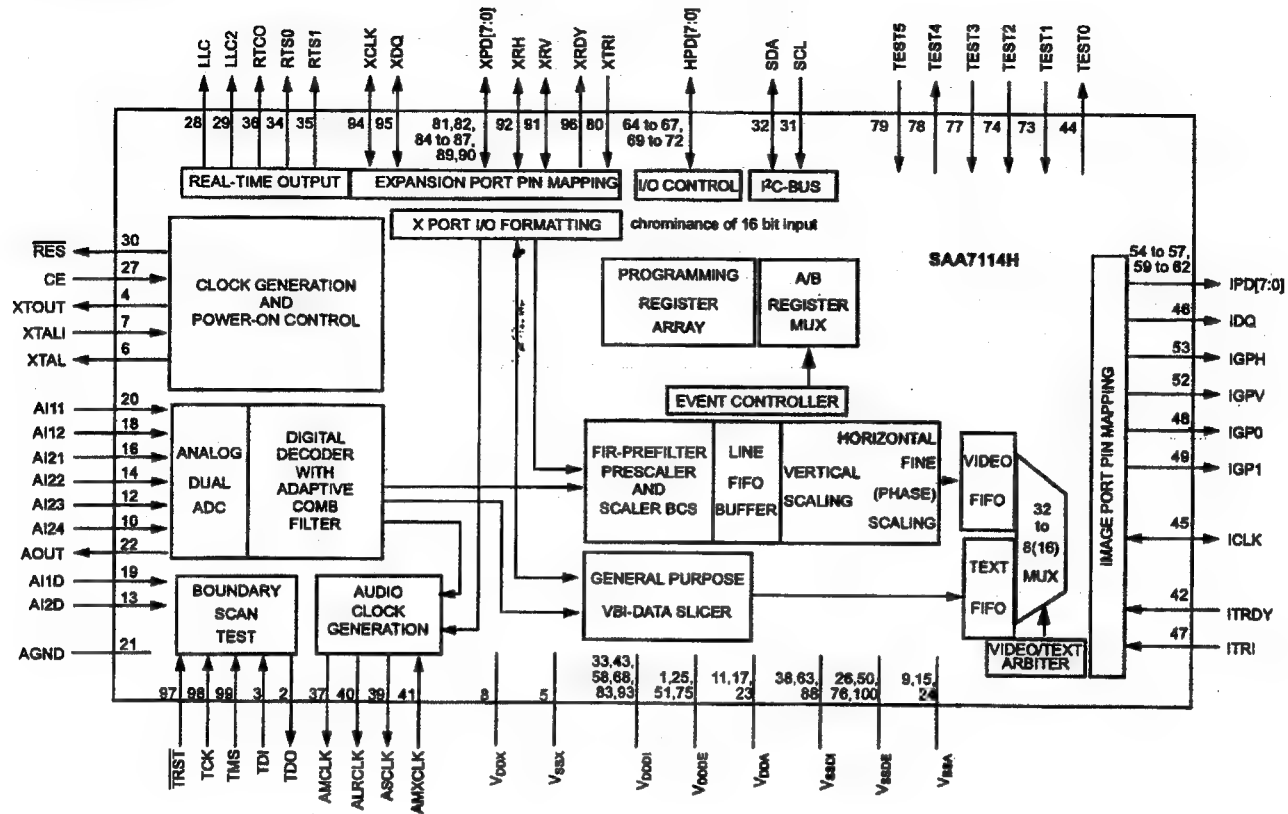


LOGIC TABLE

CONTROL	Impedance Between	
C	IN - OUT	*
H	$0.5 \sim 5 \times 10^2 \Omega$	
L	$> 10^9 \Omega$	

\* See Electrical Characteristics

● SAA7114H <Digital Video Processor, IC5101>



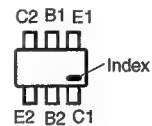
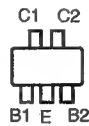
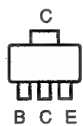
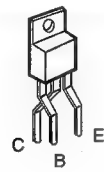
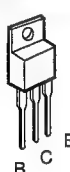
## ■ Pin description of diode, transistor and IC

### ● Diode



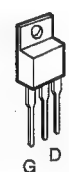
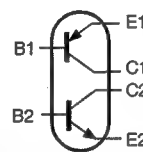
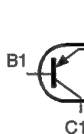
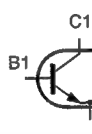
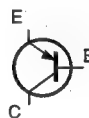
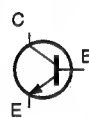
K: Cathode  
A: Anode

### ● Transistor/FET

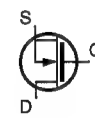


C: Collector  
B: Base  
E: Emitter

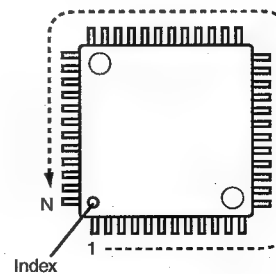
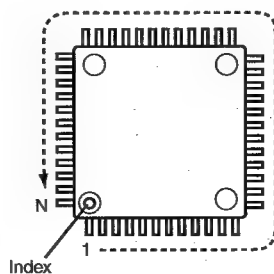
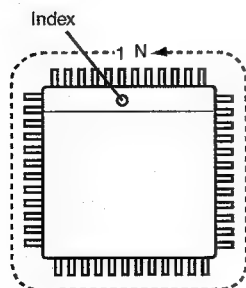
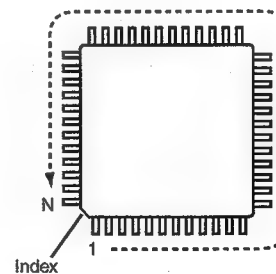
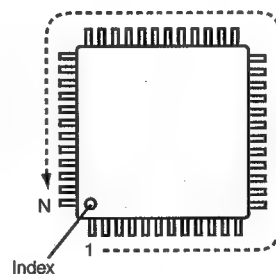
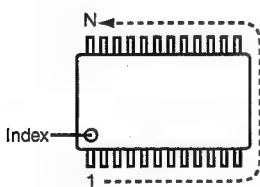
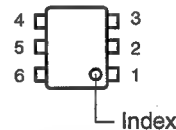
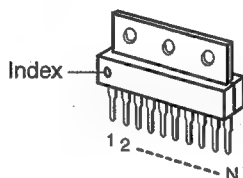
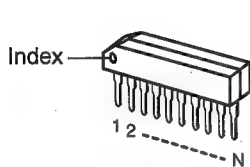
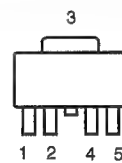
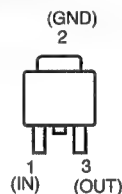
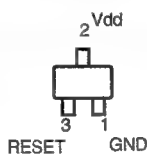
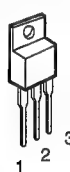
D: Drain  
G: Gate  
S: Source



FET



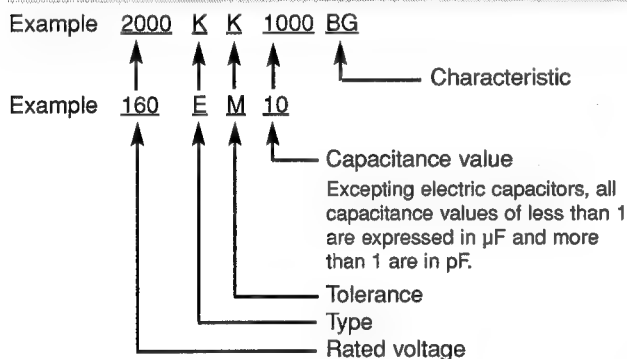
### ● IC



## ■ Parts description and reading in schematic diagram

1. The parts specification of resistors, capacitors and coils are expressed in designated code. Please check the parts description by the following code table.
2. Some of transistors and diodes are indicated in mark for the substitution of parts name. Please check the parts name by the following code table.
3. Voltages and waveforms were taken with a video color bar signal(1Vp-p at 75 ohms terminated) and controls to normal.
4. Voltages were taken with a high-impedance digital voltmeter.

### Capacitor Reading



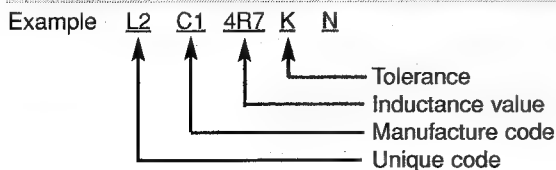
● Material table

Mark	Material
E	Electrolytic
P	Electrolytic (non-polarized)
C	Ceramic (temperature compensation)
K	Ceramic
F	Polyester
N	Polypropylene
M	Metalized polypropylene
H	Metalized polypropylar
B	Ceramic (semiconductor)
G	Metalized polyester
Y	Composite film
S	Styrol
T	Tantalum oxide solid electrolytic
U	Organic semiconductive electrolyte
D	Electric double layer electrolytic

● Tolerance table

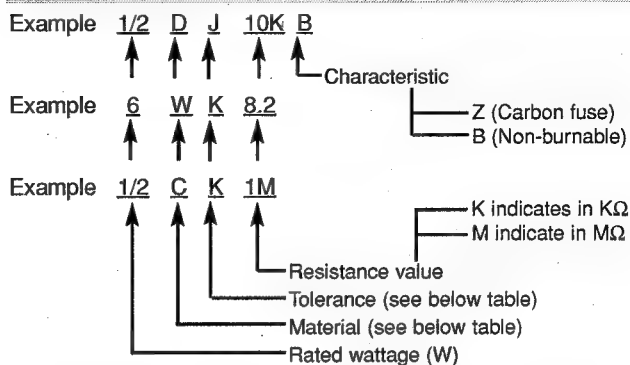
Mark	Tolerance
A	not specified
B	$\pm 0.1$
C	$\pm 0.25$
D	$\pm 0.5$
F	$\pm 1$
G	$\pm 2$
E	$\pm 2.5$
H	$\pm 3$
J	$\pm 5$
K	$\pm 10$
M	$\pm 20$
N	$\pm 30$
P	+100 -0
Q	+30 -10
T	+50 -10
U	+75 -10
V	+20 -10
W	+100 -10
X	+40 -20
Y	+150 -10
Z	+80 -20

### Coil Reading



Mark	Tolerance (nH)	Mark	Tolerance (%)
C	$\pm 0.25$	G	$\pm 2$
D	$\pm 0.5$	J	$\pm 5$
S	$\pm 0.3$	K	$\pm 10$
A	$\pm 0.2$	L	$\pm 15$
		M	$\pm 20$

### Resistor Reading



Note: Resistor which is indicated with resistance value only are 1/6W carbon resistor. Resistor which is indicated with material, tolerance and value are 1/4W rated wattage.

● Material table

Mark	Material
D	Carbon
N	Metal film
S	Oxide metal film
C	Solid
G	Metal glaze
W	Wire winding or cement
H	Ceramic
F	Fusible

● Tolerance table

Mark	Tolerance
A	$\pm 0.05$
B	$\pm 0.1$
C	$\pm 0.25$
D	$\pm 0.5$
F	$\pm 1$
G	$\pm 2$
J	$\pm 5$
K	$\pm 10$
M	$\pm 20$
P	+5 -15
Z	used in 0 ohm

### Diode/Transistor Type Reading

● Diode

Mark	Type number
R	1S2076A, 1S2473, 1N4148
AA	1S2076A, 1S2473, 1S133, 1N4148

● Transistor

(1) NPN type

Mark	Type number
--	2SC536 2SC945A 2SC1815 2SC1740S
AD	NF, NG PA, QA, RA Y, GR Q, R, S
AE	NF, NG PA, QA O, Y, GR Q, R, S

(2) PNP type

Mark	Type number
--	2SA608 2SA564A 2SA1015 2SA933S
AB	NF R Y, GR R
AC	NF Q, R O, Y, GR Q, R

(3) Chip type

Mark	Type number
--	2SA1179 2SA1037K 2SA1037AK 2SC2812 2SC2412K
AJ	M6, M7 R, S R, S
AH	L6, L7 R, S



# Electrical Parts List

Product safety should be considered when a component replacement is made in any area of a projector. Components indicated by a  $\Delta$  mark in this parts list and the circuit diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the following parts list be used for components replacement pointed out by the mark.

## ● Read Description in the parts list

Read description in the Capacitor and Resistor as follows:

CAPACITOR	CERAMIC	100P	K	50V	
					Rated Voltage
					Tolerance Symbols:
					Less than 10pF
					A : Not specified B : $\pm 0.1\text{pF}$ C : $\pm 0.25\text{pF}$
					D : $\pm 0.5\text{pF}$ E : $\pm 0.1\text{pF}$ F : $\pm 1\text{pF}$
					G : $\pm 2\text{pF}$ H : $\pm 0.1 - 0\text{pF}$ L : $\pm 0 - 0.1\text{pF}$
					R : $\pm 0.25 - 0\text{pF}$ S : $\pm 0 - 0.25\text{pF}$
					More than 10pF
					A : Not specified B : $\pm 0.1\%$ C : $\pm 0.25\%$
					D : $\pm 0.5\%$ F : $\pm 1\%$ G : $\pm 2\%$
					H : $\pm 3\%$ J : $\pm 5\%$ K : $\pm 10\%$
					L : $\pm 15\%$ M : $\pm 20\%$ N : $\pm 30\%$
					P : $\pm 100 - 0\%$ Q : $\pm 30 - 10\%$ T : $\pm 50 - 10\%$
					U : $\pm 75 - 10\%$ V : $\pm 20 - 10\%$ W : $\pm 100 - 10\%$
					X : $\pm 40 - 20\%$ Y : $\pm 150 - 10\%$ Z : $\pm 80 - 20\%$
					Rated value: P=pico farad, U=micro farad

### Material:

CERAMIC..... Ceramic  
 MT-PAPER..... Metallized Paper  
 POLYESTER..... Polyester  
 MT-POLYEST..... Metallized Polyester  
 POLYPRO..... Polypropylene  
 MT-POLYPRO..... Metallized Polypropylene  
 COMPO FILM..... Composite film  
 MT-COMPO..... Metallized Composite  
 STYRENE..... Styrene  
 TA-SOLID..... Tantalum Oxide Solid Electrolytic  
 AL-SOLID..... Aluminium Solid Electrolytic  
 ELECT..... Aluminum Foil Electrolytic  
 NP-ELECT..... Non-polarised Electrolytic  
 OS-SOLID..... Aluminium Solid with Organic Semiconductive Electrolytic  
 POS-SOLID..... Polymerized Organic Semiconductive  
 DL-ELECT..... Double Layered Electrolytic  
 PPS-FILM..... Polyphenylene Sulfide Film  
 MT-PPS-FILM..... Metalized Polyphenylene Sulfide Film  
 MT-PEN-FILM..... Metalized Polyethylenenaphthalate Film  
 CAPACITOR..... Other

RESISTOR	CARBON	4.7K	J	A	1/4W	
						Rated Wattage
						Performance Symbols:
						A: General B: Non flammable Z: Low noise
						Other: Temperature coefficient
						T: $\pm 10\text{ppm}/^\circ\text{C}$ U: $\pm 25\text{ppm}/^\circ\text{C}$ C: $\pm 50\text{ppm}/^\circ\text{C}$
						D: $\pm 100\text{ppm}/^\circ\text{C}$ E: $\pm 200\text{ppm}/^\circ\text{C}$ F: $\pm 250\text{ppm}/^\circ\text{C}$
						G: $\pm 350\text{ppm}/^\circ\text{C}$ H: $\pm 1000\text{ppm}/^\circ\text{C} \pm 10\%$ W: $\pm 1200\text{ppm}/^\circ\text{C} \pm 10\%$
						Y: $\pm 1400\text{ppm}/^\circ\text{C} \pm 10\%$ J: $\pm 2000\text{ppm}/^\circ\text{C} \pm 10\%$ K: $\pm 2400\text{ppm}/^\circ\text{C} \pm 10\%$
						L: $\pm 2700\text{ppm}/^\circ\text{C} \pm 10\%$ M: $\pm 3000\text{ppm}/^\circ\text{C} \pm 10\%$ N: $\pm 3300\text{ppm}/^\circ\text{C} \pm 10\%$
						P: $\pm 3600\text{ppm}/^\circ\text{C} \pm 10\%$ Q: $\pm 3900\text{ppm}/^\circ\text{C} \pm 10\%$ R: $\pm 4200\text{ppm}/^\circ\text{C} \pm 10\%$
						S: $\pm 4300\text{ppm}/^\circ\text{C} \pm 10\%$ V: $\pm 4500\text{ppm}/^\circ\text{C} \pm 10\%$ X: $\pm 8000\text{ppm}/^\circ\text{C} \pm 10\%$
						Tolerance Symbols:
						A: $\pm 0.05\%$ B: $\pm 0.1\%$ C: $\pm 0.25\%$ D: $\pm 0.5\%$
						F: $\pm 1\%$ G: $\pm 2\%$ J: $\pm 5\%$ K: $\pm 10\%$
						M: $\pm 20\%$ P: $\pm 5 - 15\%$ Z: 0 ohm
						Rated value, ohms:
						K: 1,000, M: 1,000,000

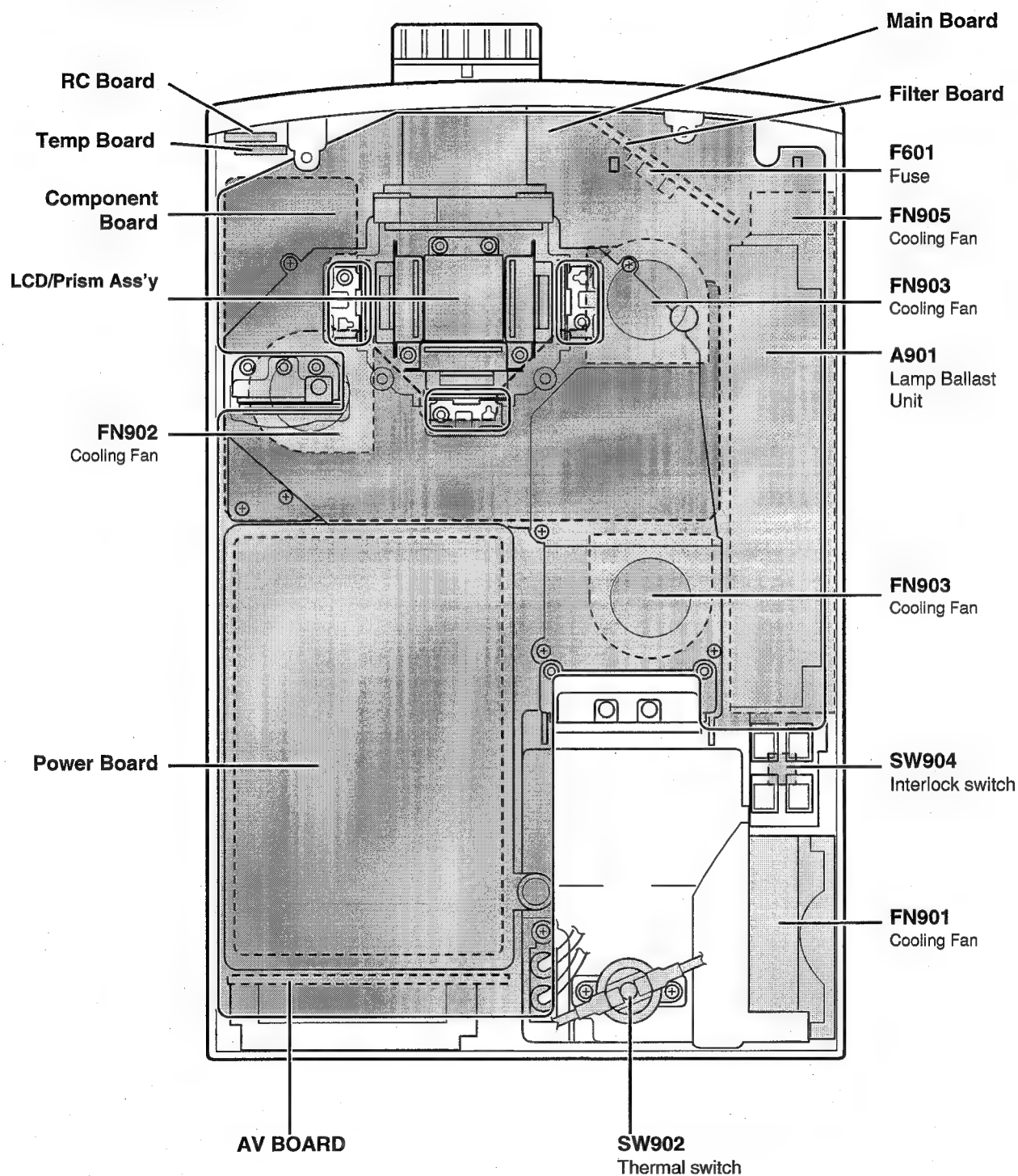
### Material:

CARBON..... Carbon  
 MT-FILM..... Metal Film  
 OXIDE-MT..... Oxide Metal Film  
 SOLID..... Composition  
 MT-GLAZE..... Metal Glaze  
 WIRE WOUND... Wire Wound  
 CERAMIC RES.. Ceramic  
 FUSIBLE RES... Fusible  
 RESISTOR ..... Other

## Electrical Parts List

Note: Parts order must contain Chassis No., Part No., and Descriptions.

● OUT OF CIRCUIT BOARD



## Electrical Parts List

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
<b>OUT OF CIRCUIT BOARDS</b>			<b>RESISTOR</b>		
△ LP900	610 287 5386	LAMP ASSY (POA-LMP25)	R1011	401 105 0405	MT-GLAZE 100 JA 1/16W
	610 291 0032	LAMP ASSY (POA-LMP34)	R1021	401 105 0405	MT-GLAZE 100 JA 1/16W
△ L901	645 044 6207	CORE, FERRITE	R1024	401 105 0504	MT-GLAZE 1K JA 1/16W
<b>MISCELLANEOUS</b>			R1026	401 203 9805	MT-GLAZE 2.7K FA 1/16W
△ A901	645 041 5302	UNIT, BALLAST	R1027	401 247 0202	MT-GLAZE 3.9K FA 1/16W
△ C901	404 071 4507	CERAMIC 470P K 400V	R1028	401 105 0405	MT-GLAZE 100 JA 1/16W
△ C902	404 071 4507	CERAMIC 470P K 400V	R1031	401 105 0603	MT-GLAZE 10K JA 1/16W
△ FN901	645 041 6057	MOTOR, FAN DC 1.86W	R1032	401 105 0504	MT-GLAZE 1K JA 1/16W
△ FN902	645 041 7856	MOTOR, FAN DC 2.2W	R1035	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
△ FN903	645 041 7856	MOTOR, FAN DC 2.2W	R1036	401 105 0405	MT-GLAZE 100 JA 1/16W
△ FN904	645 041 6088	MOTOR, FAN DC 1.56W	R1037	401 105 0405	MT-GLAZE 100 JA 1/16W
△ FN905	645 042 7824	MOTOR, FAN DC 0.6W	R1043	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
△ IL901	645 041 4978	SOCKET, INLET AC	R1049	401 105 4205	MT-GLAZE 33K JA 1/16W
SP901	645 030 6150	SPEAKER, 8	R1051	401 105 2706	MT-GLAZE 220 JA 1/16W
△ SW902	645 026 5457	SWITCH, THERMAL	R1053	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
	645 041 9164	SWITCH, THERMAL	R1054	401 211 9903	MT-GLAZE 12K FA 1/16W
△ SW904	645 024 8986	SWITCH, PUSH 2P-2TX2	R1056	401 211 9903	MT-GLAZE 12K FA 1/16W
WK3C-K6J	645 043 5621	CORD, ID CONNECTOR	R1067	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
WK3D-K6K	645 043 5638	CORD, ID CONNECTOR	R1068	401 105 2706	MT-GLAZE 220 JA 1/16W
WK8CC-BA	645 043 5645	CORD, ID CONNECTOR	R1071	401 105 2805	MT-GLAZE 2.2K JA 1/16W
WK8D-RC	645 040 1596	CORD, ID CONNECTOR	R1075	401 105 0504	MT-GLAZE 1K JA 1/16W
WK8G-K8H	645 044 1295	CORD, ID CONNECTOR	R2001	401 105 4205	MT-GLAZE 33K JA 1/16W
<b>610 286 6254 ASSY, PWB, AV MK6A</b>			R2002	401 105 0405	MT-GLAZE 100 JA 1/16W
<b>1AA0B10C2820A</b>			R2003TM	401 027 6608	CARBON 75 JA 1/6W
<b>TRANSISTOR</b>			R2007TM	401 027 6608	CARBON 75 JA 1/6W
Q1001	405 132 3101	TR DTC114EKA-T146	R2011TM	401 027 6608	CARBON 75 JA 1/6W
Q1002	405 132 3101	TR DTC114EKA-T146	R2013TM	401 027 6608	CARBON 75 JA 1/6W
<b>INTEGRATED CIRCUIT</b>			R2016TM	401 027 6608	CARBON 75 JA 1/6W
IC1001	409 461 7304	IC AD8057ART	R2018	401 105 5509	MT-GLAZE 470K JA 1/16W
IC1021	409 417 1400	IC CXA2016S	R2019	401 105 0405	MT-GLAZE 100 JA 1/16W
<b>CAPACITOR</b>			R2021	401 105 5509	MT-GLAZE 470K JA 1/16W
C1006	403 157 3601	CERAMIC 100P J 50V	R2022	401 105 0405	MT-GLAZE 100 JA 1/16W
C1007	403 348 5803	CERAMIC 0.47U K 10V	R2023	401 105 5509	MT-GLAZE 470K JA 1/16W
C1009	403 157 1904	CERAMIC 10P D 50V	R2024	401 105 0405	MT-GLAZE 100 JA 1/16W
C1011	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2026	401 105 5509	MT-GLAZE 470K JA 1/16W
C1014	403 162 4006	ELECT 22U M 6.3V	R2027	401 105 0405	MT-GLAZE 100 JA 1/16W
C1016	403 298 9609	CERAMIC 0.1U K 16V	R2093	401 105 0702	MT-GLAZE 100K JA 1/16W
C1017	403 162 4006	ELECT 22U M 6.3V	R2094	401 105 0405	MT-GLAZE 100 JA 1/16W
C1018	403 298 9609	CERAMIC 0.1U K 16V	R2096	401 105 0702	MT-GLAZE 100K JA 1/16W
C1028	403 205 7803	TA-SOLID 2.2U M 16V	R2097	401 105 0405	MT-GLAZE 100 JA 1/16W
C1029	403 325 6304	CERAMIC 0.22U K 10V	<b>COIL</b>		
C1031	403 325 6304	CERAMIC 0.22U K 10V	L1001	645 024 0669	FILTER, EMI 20PF
C1032	403 091 0209	TA-SOLID 1U M 16V	L1002	645 024 0669	FILTER, EMI 20PF
C1033	403 298 9609	CERAMIC 0.1U K 16V	L1003	645 024 0669	FILTER, EMI 20PF
C1034	403 325 6304	CERAMIC 0.22U K 10V	L1006	645 025 0637	FILTER, EMI 190PF
C1036	403 091 0209	TA-SOLID 1U M 16V	L1007	645 025 0637	FILTER, EMI 190PF
C1038	403 298 9609	CERAMIC 0.1U K 16V	L1017	645 014 2659	FILTER, EMI 10MHZ
C1039	403 162 4006	ELECT 22U M 6.3V	L1018	645 014 2659	FILTER, EMI 10MHZ
C1043	403 155 2200	CERAMIC 3300P K 50V	L1019	645 014 2659	FILTER, EMI 10MHZ
C1044	403 298 9609	CERAMIC 0.1U K 16V	L1021	645 014 2659	FILTER, EMI 10MHZ
C1046	403 298 9609	CERAMIC 0.1U K 16V	L1022	645 014 2659	FILTER, EMI 10MHZ
C2001	403 298 9609	CERAMIC 0.1U K 16V	L1023	645 014 2659	FILTER, EMI 10MHZ
C2018TM	403 068 9006	CERAMIC 100P K 50V	L1024	645 014 2659	FILTER, EMI 10MHZ
C2021TM	403 157 3601	CERAMIC 100P J 50V	L2001	403 366 6202	CERAMIC 22U Z 10V
C2023TM	403 068 9006	CERAMIC 100P K 50V	L2002	403 366 6202	CERAMIC 22U Z 10V
C2026TM	403 157 3601	CERAMIC 100P J 50V	L2003	645 014 2659	FILTER, EMI 10MHZ
C2093TM	403 068 9006	CERAMIC 100P K 50V	L2004	645 002 3934	FILTER, EMI 50MHZ
C2096TM	403 157 3601	CERAMIC 100P J 50V	L2006	645 002 3934	FILTER, EMI 50MHZ
			L2007	645 002 3934	FILTER, EMI 50MHZ
			L2008	645 002 3934	FILTER, EMI 50MHZ
			L2009	645 002 3934	FILTER, EMI 50MHZ
			L2011TM	403 258 7102	NP-ELECT 100U M 10V
			L2012	403 366 6202	CERAMIC 22U Z 10V
			L2013	403 366 6202	CERAMIC 22U Z 10V
			L2016	645 014 2659	FILTER, EMI 10MHZ

## Electrical Parts List

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
L2017	645 014 2659	FILTER,EMI 10MHZ		405 014 4608	TR 2SC2412K T146 S
L2021	645 014 2659	FILTER,EMI 10MHZ		405 015 8704	TR 2SC2812-L6-TB
L2022	645 014 2659	FILTER,EMI 10MHZ		405 015 8902	TR 2SC2812-L7-TB
L2091	645 014 2659	FILTER,EMI 10MHZ	Q2661	405 014 4509	TR 2SC2412K T146 R
L2092	645 014 2659	FILTER,EMI 10MHZ		405 014 4608	TR 2SC2412K T146 S
<b>DIODE</b>				405 015 8704	TR 2SC2812-L6-TB
D1001	407 179 0501	ZENER DIODE UDZ6.2B-TE-17		405 015 8902	TR 2SC2812-L7-TB
D1002	407 179 0501	ZENER DIODE UDZ6.2B-TE-17	Q2671	405 014 4509	TR 2SC2412K T146 R
D1003	407 179 0501	ZENER DIODE UDZ6.2B-TE-17		405 014 4608	TR 2SC2412K T146 S
D1006	407 187 8209	ZENER DIODE UDZ12B-TE-17		405 015 8704	TR 2SC2812-L6-TB
D1007	407 187 8209	ZENER DIODE UDZ12B-TE-17		405 015 8902	TR 2SC2812-L7-TB
D1008	407 149 0807	DIODE 1SS355-TE-17	Q2681	405 014 4509	TR 2SC2412K T146 R
D1009	407 149 0807	DIODE 1SS355-TE-17		405 014 4608	TR 2SC2412K T146 S
D1010	407 149 0807	DIODE 1SS355-TE-17		405 015 8704	TR 2SC2812-L6-TB
D1012	407 149 0807	DIODE 1SS355-TE-17		405 015 8902	TR 2SC2812-L7-TB
D1013	407 149 0807	DIODE 1SS355-TE-17	Q2691	405 014 4509	TR 2SC2412K T146 R
D1014	407 149 0807	DIODE 1SS355-TE-17		405 014 4608	TR 2SC2412K T146 S
D1021	407 187 8605	ZENER DIODE UDZ20B-TE-17		405 015 8704	TR 2SC2812-L6-TB
D1022	407 187 8605	ZENER DIODE UDZ20B-TE-17		405 015 8902	TR 2SC2812-L7-TB
D1023	407 187 8605	ZENER DIODE UDZ20B-TE-17	Q2701	405 047 9007	TR 2SB1204-S-TL
D1024	407 187 8605	ZENER DIODE UDZ20B-TE-17		405 047 9106	TR 2SB1204-T-TL
D1026	407 187 8605	ZENER DIODE UDZ20B-TE-17	Q2702	405 014 4509	TR 2SC2412K T146 R
D1027	407 187 8605	ZENER DIODE UDZ20B-TE-17		405 014 4608	TR 2SC2412K T146 S
D1028	407 187 8605	ZENER DIODE UDZ20B-TE-17		405 015 8704	TR 2SC2812-L6-TB
D1029	407 187 8605	ZENER DIODE UDZ20B-TE-17		405 015 8902	TR 2SC2812-L7-TB
D1031	407 187 8605	ZENER DIODE UDZ20B-TE-17	Q6611	405 014 4509	TR 2SC2412K T146 R
D2001	407 187 8209	ZENER DIODE UDZ12B-TE-17		405 014 4608	TR 2SC2412K T146 S
D2002	407 179 0501	ZENER DIODE UDZ6.2B-TE-17		405 015 8704	TR 2SC2812-L6-TB
D2003	407 179 0501	ZENER DIODE UDZ6.2B-TE-17		405 015 8902	TR 2SC2812-L7-TB
D2004	407 179 0501	ZENER DIODE UDZ6.2B-TE-17	<b>INTEGRATED CIRCUIT</b>		
D2006	407 179 0501	ZENER DIODE UDZ6.2B-TE-17	IC2641	409 461 7809	IC PQ20WZ11
D2007	407 179 0501	ZENER DIODE UDZ6.2B-TE-17	IC2651	409 461 7809	IC PQ20WZ11
D2008	407 179 0501	ZENER DIODE UDZ6.2B-TE-17	IC2661	409 461 7809	IC PQ20WZ11
D2009	407 179 0501	ZENER DIODE UDZ6.2B-TE-17	IC2671	409 461 7809	IC PQ20WZ11
D2011	407 179 0501	ZENER DIODE UDZ6.2B-TE-17	IC2681	409 461 7809	IC PQ20WZ11
D2012	407 179 0501	ZENER DIODE UDZ6.2B-TE-17	IC2691	409 461 7809	IC PQ20WZ11
D2013	407 179 0501	ZENER DIODE UDZ6.2B-TE-17	<b>CAPACITOR</b>		
D2016	407 187 8209	ZENER DIODE UDZ12B-TE-17	C2501	403 229 3508	ELECT 100U M 16V
D2017	407 187 8209	ZENER DIODE UDZ12B-TE-17		403 335 0408	ELECT 100U M 16V
D2018	407 187 8209	ZENER DIODE UDZ12B-TE-17	C2502	403 164 0204	CERAMIC 0.1U Z 25V
D2019	407 187 8209	ZENER DIODE UDZ12B-TE-17	C2503	403 164 0204	CERAMIC 0.1U Z 25V
D2021	407 187 8209	ZENER DIODE UDZ12B-TE-17	C2504	403 164 0204	CERAMIC 0.1U Z 25V
D2022	407 187 8209	ZENER DIODE UDZ12B-TE-17	C2506	403 164 0204	CERAMIC 0.1U Z 25V
D2023	407 187 8209	ZENER DIODE UDZ12B-TE-17	C2507	403 164 0204	CERAMIC 0.1U Z 25V
D2024	407 187 8209	ZENER DIODE UDZ12B-TE-17	C2508	403 164 0204	CERAMIC 0.1U Z 25V
D2091	407 187 8209	ZENER DIODE UDZ12B-TE-17	C2511	403 341 8801	ELECT 10U M 25V
D2092	407 187 8209	ZENER DIODE UDZ12B-TE-17	C2512	403 164 0204	CERAMIC 0.1U Z 25V
D2093	407 187 8209	ZENER DIODE UDZ12B-TE-17	C2513	403 341 8801	ELECT 10U M 25V
D2094	407 187 8209	ZENER DIODE UDZ12B-TE-17	C2514	403 164 0204	CERAMIC 0.1U Z 25V
<b>MISCELLANEOUS</b>			C2516	403 341 8801	ELECT 10U M 25V
K1001	645 009 8093	SOCKET,D-SUB 15P	C2517	403 164 0204	CERAMIC 0.1U Z 25V
K1002	645 000 2595	SOCKET,DIN 8P	C2641	403 229 3508	ELECT 100U M 16V
K2001	610 010 8295	SOCKET,DIN 4P		403 335 0408	ELECT 100U M 16V
K2002	645 042 2799	JACK,RCA-3	C2642	403 149 9208	CERAMIC 0.01U Z 50V
K2003	645 000 2571	JACK,PHONE D8.0	C2643	403 149 9208	CERAMIC 0.01U Z 50V
K2004	645 000 2571	JACK,PHONE D8.0	C2651	403 229 3508	ELECT 100U M 16V
K2005	645 000 2571	JACK,PHONE D8.0		403 335 0408	ELECT 100U M 16V
SW1001	645 042 8104	SWITCH,PUSH 1P-1TX1	C2652	403 149 9208	CERAMIC 0.01U Z 50V
<b>610 286 6261 ASSY,PWB,COMPONENT MK6A 1AA0B10C2820B</b>			C2653	403 149 9208	CERAMIC 0.01U Z 50V
<b>TRANSISTOR</b>			C2661	403 229 3508	ELECT 100U M 16V
Q2651	405 014 4509	TR 2SC2412K T146 R		403 335 0408	ELECT 100U M 16V
			C2662	403 149 9208	CERAMIC 0.01U Z 50V
			C2663	403 149 9208	CERAMIC 0.01U Z 50V
			C2671	403 229 3508	ELECT 100U M 16V
				403 335 0408	ELECT 100U M 16V
			C2672	403 149 9208	CERAMIC 0.01U Z 50V

## Electrical Parts List

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
C2673	403 149 9208	CERAMIC 0.01U Z 50V	R2671	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
C2681	403 229 3508	ELECT 100U M 16V	R2672	401 105 5301	MT-GLAZE 4.7K JA 1/16W
	403 335 0408	ELECT 100U M 16V	R2676	401 105 2409	MT-GLAZE 2K JA 1/16W
C2682	403 149 9208	CERAMIC 0.01U Z 50V	R2677	401 162 6303	MT-GLAZE 330 JA 1W
C2683	403 149 9208	CERAMIC 0.01U Z 50V	R2678	401 162 6303	MT-GLAZE 330 JA 1W
C2691	403 229 3508	ELECT 100U M 16V	R2679	401 162 6303	MT-GLAZE 330 JA 1W
	403 335 0408	ELECT 100U M 16V	R2681	401 102 7506	MT-GLAZE 22 JA 1W
C2692	403 149 9208	CERAMIC 0.01U Z 50V	R2682	401 102 7506	MT-GLAZE 22 JA 1W
C2693	403 149 9208	CERAMIC 0.01U Z 50V	R2683	401 102 7506	MT-GLAZE 22 JA 1W
C6614	403 229 3508	ELECT 100U M 16V	R2684	401 105 0504	MT-GLAZE 1K JA 1/16W
	403 335 0408	ELECT 100U M 16V	R2686	401 105 0504	MT-GLAZE 1K JA 1/16W
C6616	403 229 3508	ELECT 100U M 16V	R2687	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
	403 335 0408	ELECT 100U M 16V	R2688	401 105 5301	MT-GLAZE 4.7K JA 1/16W
<b>RESISTOR</b>			R2693	401 105 2409	MT-GLAZE 2K JA 1/16W
R2500	401 105 0306	MT-GLAZE 10 JA 1/16W	R2694	401 162 6303	MT-GLAZE 330 JA 1W
R2501	401 035 4108	MT-GLAZE 0.000 ZA 1/8W	R2695	401 162 6303	MT-GLAZE 330 JA 1W
R2502	401 035 4108	MT-GLAZE 0.000 ZA 1/8W	R2696	401 162 6303	MT-GLAZE 330 JA 1W
R2504	401 105 0306	MT-GLAZE 10 JA 1/16W	R2697	401 102 7506	MT-GLAZE 22 JA 1W
R2506	401 105 0306	MT-GLAZE 10 JA 1/16W	R2698	401 102 7506	MT-GLAZE 22 JA 1W
R2507	401 105 0306	MT-GLAZE 10 JA 1/16W	R2699	401 102 7506	MT-GLAZE 22 JA 1W
R2508	401 105 0306	MT-GLAZE 10 JA 1/16W	R2701	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R2509	401 105 0306	MT-GLAZE 10 JA 1/16W	R2702	401 230 4705	MT-GLAZE 680 JA 1W
R2511	401 105 0306	MT-GLAZE 10 JA 1/16W	R2703	401 113 6109	MT-GLAZE 2.4K JA 1/16W
R2512	401 105 0306	MT-GLAZE 10 JA 1/16W	R2704	401 105 0504	MT-GLAZE 1K JA 1/16W
R2513	401 148 6006	MT-GLAZE 2.2 JA 1/16W	R6614	401 105 0603	MT-GLAZE 10K JA 1/16W
R2514	401 148 6006	MT-GLAZE 2.2 JA 1/16W	R6616	401 105 0603	MT-GLAZE 10K JA 1/16W
R2520	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6618	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R2521	401 105 0306	MT-GLAZE 10 JA 1/16W	R6619	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2522	401 105 0306	MT-GLAZE 10 JA 1/16W	R6631	401 105 0504	MT-GLAZE 1K JA 1/16W
R2523	401 105 0306	MT-GLAZE 10 JA 1/16W	R6633	401 105 0504	MT-GLAZE 1K JA 1/16W
R2524	401 105 0306	MT-GLAZE 10 JA 1/16W	R6634	401 113 6208	MT-GLAZE 3.6K JA 1/16W
R2525	401 105 0306	MT-GLAZE 10 JA 1/16W	R6635	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2526	401 105 0306	MT-GLAZE 10 JA 1/16W	R6641	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R2528	401 105 0306	MT-GLAZE 10 JA 1/16W	R6642	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2529	401 105 0306	MT-GLAZE 10 JA 1/16W	R6643	401 105 2409	MT-GLAZE 2K JA 1/16W
R2531	401 148 6006	MT-GLAZE 2.2 JA 1/16W	R6644	401 288 0506	MT-GLAZE 750 JA 1W
R2532	401 148 6006	MT-GLAZE 2.2 JA 1/16W	R6645	401 288 0506	MT-GLAZE 750 JA 1W
R2538	401 148 6006	MT-GLAZE 2.2 JA 1/16W	R6646	401 288 0506	MT-GLAZE 750 JA 1W
R2539	401 148 6006	MT-GLAZE 2.2 JA 1/16W	R6647	401 104 6002	MT-GLAZE 100 JA 1W
R2540	401 105 0306	MT-GLAZE 10 JA 1/16W	R6648	401 104 6002	MT-GLAZE 100 JA 1W
R2542	401 105 0306	MT-GLAZE 10 JA 1/16W	R6649	401 104 6002	MT-GLAZE 100 JA 1W
R2543	401 105 0306	MT-GLAZE 10 JA 1/16W	R6651	401 105 0504	MT-GLAZE 1K JA 1/16W
R2544	401 105 0306	MT-GLAZE 10 JA 1/16W	R6653	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2545	401 105 0306	MT-GLAZE 10 JA 1/16W	R6661	401 105 0504	MT-GLAZE 1K JA 1/16W
R2546	401 105 0306	MT-GLAZE 10 JA 1/16W	R6663	401 105 0504	MT-GLAZE 1K JA 1/16W
R2548	401 105 0306	MT-GLAZE 10 JA 1/16W	R6664	401 113 6208	MT-GLAZE 3.6K JA 1/16W
R2549	401 105 0306	MT-GLAZE 10 JA 1/16W	R6665	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2641	401 105 1501	MT-GLAZE 1.5K JA 1/16W	R6671	401 105 0504	MT-GLAZE 1K JA 1/16W
R2642	401 105 6001	MT-GLAZE 5.6K JA 1/16W	R6673	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2643	401 105 2409	MT-GLAZE 2K JA 1/16W	R6681	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R2647	401 102 7506	MT-GLAZE 22 JA 1W	R6682	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2648	401 102 7506	MT-GLAZE 22 JA 1W	R6683	401 105 2409	MT-GLAZE 2K JA 1/16W
R2649TM	401 102 7506	MT-GLAZE 22 JA 1W	R6684	401 162 6303	MT-GLAZE 330 JA 1W
R2651	401 105 0504	MT-GLAZE 1K JA 1/16W	R6685	401 162 6303	MT-GLAZE 330 JA 1W
R2653	401 113 6208	MT-GLAZE 3.6K JA 1/16W	R6686	401 162 6303	MT-GLAZE 330 JA 1W
R2654	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6687	401 198 7909	MT-GLAZE 47 JA 1W
R2655	401 105 6001	MT-GLAZE 5.6K JA 1/16W	R6688	401 198 7909	MT-GLAZE 47 JA 1W
R2659	401 105 2409	MT-GLAZE 2K JA 1/16W	R6689	401 198 7909	MT-GLAZE 47 JA 1W
R2661	401 185 9701	MT-GLAZE 470 JA 1W	R6691	401 105 0504	MT-GLAZE 1K JA 1/16W
R2662	401 185 9701	MT-GLAZE 470 JA 1W	R6693	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2663	401 185 9701	MT-GLAZE 470 JA 1W	R6697	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2664	401 198 7503	MT-GLAZE 15 JA 1W	<b>COIL</b>		
R2665	401 198 7503	MT-GLAZE 15 JA 1W	L2501	401 036 8907	MT-GLAZE 5.6 JA 1/8W
R2666	401 198 7503	MT-GLAZE 15 JA 1W	<b>DIODE</b>		
R2667	401 105 0504	MT-GLAZE 1K JA 1/16W	D2502	407 149 0807	DIODE 1SS355-TE-17
R2669	401 105 0504	MT-GLAZE 1K JA 1/16W	D2641	407 149 0807	DIODE 1SS355-TE-17

## Electrical Parts List

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
D2651	407 149 0807	DIODE 1SS355-TE-17	<b>ASSY,PWB,POWER MK6A</b>		
D2661	407 149 0807	DIODE 1SS355-TE-17	<b>TRANSISTOR</b>		
D2671	407 149 0807	DIODE 1SS355-TE-17	Q611	405 140 3704	TR 2SK2698
D2681	407 149 0807	DIODE 1SS355-TE-17	Q641	405 134 5905	TR 2SA1037AK-T146-R
D2691	407 149 0807	DIODE 1SS355-TE-17	Q661	405 014 4509	TR 2SC2412K T146 R
D6611	407 004 0706	DIODE DCB015-TB	Q662	405 014 4509	TR 2SC2412K T146 R
<b>610 286 9309 ASSY,PWB,R/C MK6A</b>			Q663	405 014 4509	TR 2SC2412K T146 R
<b>1AA0B10C2820C</b>			Q671	405 138 1309	TR 2SB1565-E
<b>CAPACITOR</b>				405 138 1408	TR 2SB1565-F
C2801	403 283 6309	CERAMIC 1U Z 10V	Q672	405 014 4509	TR 2SC2412K T146 R
C2802	403 157 6602	CERAMIC 470P K 50V	Q681	405 144 6503	TR 2SK2312
C2803	403 304 2402	ELECT 100U M 10V	<b>INTEGRATED CIRCUIT</b>		
<b>RESISTOR</b>			IC631	409 421 4701	IC STR-Z2156
RC2801	645 034 5029	UNIT,REMOCON RECEIVER	IC656	409 344 6509	IC UPC1093T-E1
R2801	401 105 2706	MT-GLAZE 220 JA 1/16W	<b>CAPACITOR</b>		
R2802	401 105 0405	MT-GLAZE 100 JA 1/16W	C611	403 165 6007	CERAMIC 1000P K 1K
R2803	401 105 2706	MT-GLAZE 220 JA 1/16W	C612	403 165 6007	CERAMIC 1000P K 1K
<b>610 289 3809 ASSY,PWB,POWER MK6A SERVICE</b>			C616	403 275 6003	MT-POLYEST 1.5U J 400V
<b>ASSY,PWB,HIC MK6A</b>			C617	403 119 8002	ELECT 470U M 25V
<b>TRANSISTOR</b>			C618	404 084 0206	ELECT 120U M 450V
Q01	405 014 4509	TR 2SC2412K T146 R	C619	403 323 8706	MT-POLYEST 0.047U K 450V
Q02	405 134 5905	TR 2SA1037AK-T146-R	C620	403 323 8706	MT-POLYEST 0.047U K 450V
<b>INTEGRATED CIRCUIT</b>			C630	403 156 9000	ELECT 2.2U M 50V
IC01	409 483 3803	IC FA5332M	C631	403 237 7901	MT-COMPO 0.22U J 50V
<b>CAPACITOR</b>			C632	403 069 1702	CERAMIC 1000P K 50V
C01	403 074 9502	CERAMIC 680P K 50V	C633	403 165 8803	CERAMIC 330P K 2K
C02	403 075 2304	CERAMIC 0.068U Z 50V	C634	403 070 2606	CERAMIC 0.1U Z 50V
C03	403 070 2606	CERAMIC 0.1U Z 50V	C635	403 232 1003	CERAMIC 100P K 2K
C04	403 030 7009	CERAMIC 68P J 50V	C636	403 084 3507	POLYPRO 6800P J 630V
C05	403 069 5601	CERAMIC 0.01U K 50V	C637	403 074 9502	CERAMIC 680P K 50V
C06	403 073 7301	CERAMIC 470P K 50V	C638	403 156 8805	ELECT 1U M 50V
C07	403 070 2606	CERAMIC 0.1U Z 50V	C639	403 148 1807	ELECT 220U M 35V
C08	403 074 3104	CERAMIC 0.047U Z 50V	C640	403 070 2606	CERAMIC 0.1U Z 50V
C10	403 070 2606	CERAMIC 0.1U Z 50V	C641	403 269 5906	CERAMIC 0.22U K 16V
C11	403 070 2606	CERAMIC 0.1U Z 50V	C642	403 070 2606	CERAMIC 0.1U Z 50V
<b>RESISTOR</b>			C643	403 166 9809	TA-SOLID 0.47U M 25V
R01	401 038 0800	MT-GLAZE 22K JA 1/10W	△ C648	404 059 9203	CERAMIC 1000P M 400V
R02	401 037 5608	MT-GLAZE 10K JA 1/10W	△ C649	404 059 9203	CERAMIC 1000P M 400V
R03	401 037 9507	MT-GLAZE 1.8M JA 1/10W	C651	403 350 5006	ELECT 1000U M 25V
R04	401 038 0503	MT-GLAZE 22 JA 1/10W	C652	403 356 0005	ELECT 3900U M 10V
R05	401 037 5004	MT-GLAZE 0.000 ZA 1/10W	C653	403 155 5607	ELECT 220U M 10V
R06	401 037 5004	MT-GLAZE 0.000 ZA 1/10W	C654	403 076 2006	CERAMIC 330P K 500V
R07	401 038 3504	MT-GLAZE 330 JA 1/10W	C655	403 076 2006	CERAMIC 330P K 500V
R08	401 037 5202	MT-GLAZE 100 JA 1/10W	C656	403 256 0808	MT-COMPO 0.47U J 50V
R09	401 037 7909	MT-GLAZE 1.5K JA 1/10W	C671	403 199 9708	ELECT 470U M 25V
R11	401 038 6604	MT-GLAZE 470K JA 1/10W	C683	403 208 6001	ELECT 2200U M 6.3V
R12	401 038 6505	MT-GLAZE 47K JA 1/10W	C685	403 208 6001	ELECT 2200U M 6.3V
R13	401 148 2701	MT-GLAZE 1.1K FA 1/10W	C687	403 208 6001	ELECT 2200U M 6.3V
R14	401 092 3304	MT-GLAZE 1.2K FA 1/10W	<b>RESISTOR</b>		
<b>VARIABLE RESISTOR</b>			R612	402 083 4805	RESISTER 0.1JA 2W
VR01	645 041 5333	VR,SEMI,1K M	R614	401 237 0007	MT-GLAZE 47K JA 1W
<b>DIODE</b>			R615	401 237 0007	MT-GLAZE 47K JA 1W
D01	407 004 1000	DIODE DCC010-TB	R616	401 237 0007	MT-GLAZE 47K JA 1W
D02	407 004 1000	DIODE DCC010-TB	R617	401 237 0007	MT-GLAZE 47K JA 1W
			R618	401 038 5508	MT-GLAZE 4.7 JA 1/10W
			R620	401 242 3901	MT-GLAZE 240K JA 1/2W
			R621	401 242 3901	MT-GLAZE 240K JA 1/2W
			R622	401 259 9002	MT-GLAZE 150K FA 1/2W
			R623	401 259 9002	MT-GLAZE 150K FA 1/2W
			R624	401 259 9002	MT-GLAZE 150K FA 1/2W
			R625	401 259 9002	MT-GLAZE 150K FA 1/2W
			R626	401 263 0101	MT-GLAZE 100K JA 1W

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R627	401 263 0101	MT-GLAZE 100K JA 1W		407 187 7806	ZENER DIODE UDZ6.8B-TE-17
R628	401 263 0101	MT-GLAZE 100K JA 1W	D660	407 179 4905	ZENER DIODE UDZ-TE-174.7B
R629	401 263 0101	MT-GLAZE 100K JA 1W	D661	407 149 0807	DIODE 1SS355-TE-17
R631	401 263 0101	MT-GLAZE 100K JA 1W	D665	407 149 0807	DIODE 1SS355-TE-17
R632	401 263 0101	MT-GLAZE 100K JA 1W			
△ R633	402 079 7803	FUSIBLE RES 22 JH 1/4W			
R634	401 238 4509	MT-GLAZE 47 JA 1/3W			
R635	401 038 6307	MT-GLAZE 470 JA 1/10W			
R636	401 288 3903	MT-GLAZE 200 JA 1/3W			
R637	401 037 5608	MT-GLAZE 10K JA 1/10W			
R638	401 037 5202	MT-GLAZE 100 JA 1/10W			
R641	401 037 5400	MT-GLAZE 1K JA 1/10W			
R642	401 037 5707	MT-GLAZE 100K JA 1/10W			
R643	401 037 8005	MT-GLAZE 15K JA 1/10W			
R644	401 038 0909	MT-GLAZE 220K JA 1/10W			
R645	401 038 9308	MT-GLAZE 68K JA 1/10W			
R646	401 038 9209	MT-GLAZE 6.8K JA 1/10W			
R654	401 038 2002	MT-GLAZE 270 JA 1/10W			
R655	401 037 5400	MT-GLAZE 1K JA 1/10W			
R656	401 037 5608	MT-GLAZE 10K JA 1/10W			
R657	401 038 9209	MT-GLAZE 6.8K JA 1/10W			
R658	401 037 5103	MT-GLAZE 10 JA 1/10W			
R659	401 037 5400	MT-GLAZE 1K JA 1/10W			
R660	401 039 0304	MT-GLAZE 820 JA 1/10W			
R661	401 037 5608	MT-GLAZE 10K JA 1/10W			
R662	401 038 7700	MT-GLAZE 5.6K JA 1/10W			
R663	401 038 9209	MT-GLAZE 6.8K JA 1/10W			
R664	401 037 7909	MT-GLAZE 1.5K JA 1/10W			
R665	401 038 0701	MT-GLAZE 2.2K JA 1/10W			
R666	401 037 9309	MT-GLAZE 18K JA 1/10W			
R667	401 038 0701	MT-GLAZE 2.2K JA 1/10W			
R671	401 238 4400	MT-GLAZE 2.7K JA 1/3W			
R672	401 238 4202	MT-GLAZE 1.5K JA 1/3W			
R673	401 038 6406	MT-GLAZE 4.7K JA 1/10W			
R674	401 037 5608	MT-GLAZE 10K JA 1/10W			
R681	401 038 0800	MT-GLAZE 22K JA 1/10W			
R682	401 037 5707	MT-GLAZE 100K JA 1/10W			
<b>TRANSFORMER</b>					
△ TSW611	645 026 4511	SWITCH, THERMAL			
	645 043 3009	THERMOSTATS			
△ T651	645 042 1921	TRANS, POWER, PULSE			
<b>COIL</b>					
L611	645 039 9749	INDUCTOR, 1800U			
L615	610 031 9998	PIPE CORE			
L671	645 007 8125	INDUCTOR, 47U K			
L683	645 007 7975	INDUCTOR, 100U K			
L685	645 007 7975	INDUCTOR, 100U K			
L687	645 007 7975	INDUCTOR, 100U K			
<b>DIODE</b>					
DB611	407 202 7705	DIODE D10XB60			
D611	407 174 2302	DIODE AK06			
D612	407 191 3900	DIODE FML-G16S			
D631	407 187 8209	ZENER DIODE UDZ12B-TE-17			
D632	407 190 4106	DIODE SFPL-52V			
D633	407 124 6800	DIODE AG01A			
D634	407 125 5307	ZENER DIODE RD27M-T1BB			
	407 140 0608	ZENER DIODE 02CZ27-TE85L			
D635	407 190 4106	DIODE SFPL-52V			
D641	407 149 0807	DIODE 1SS355-TE-17			
D642	407 206 6308	ZD UDZS-TE-175.1B			
	407 179 1706	ZENER DIODE UDZ5.1B-TE-17			
D651	407 202 9808	DIODE FMB-26L			
D652	407 164 2206	DIODE FMB-24L			
D653	407 190 4106	DIODE SFPL-52V			
D656	407 209 4509	ZD UDZS-TE-176.8B			

Ref. No.	Part No.	Description
	407 187 7806	ZENER DIODE UDZ6.8B-TE-17
D660	407 179 4905	ZENER DIODE UDZ-TE-174.7B
D661	407 149 0807	DIODE 1SS355-TE-17
D665	407 149 0807	DIODE 1SS355-TE-17
<b>MISCELLANEOUS</b>		
FB611	610 229 3531	CORE
FB612	610 229 3531	CORE
△ PC641	408 039 3502	PC TLP721F(D4-GB)
△ PC642	408 039 3502	PC TLP721F(D4-GB)
△ PC643	408 039 3502	PC TLP721F(D4-GB)
△ PC644	408 039 3502	PC TLP721F(D4-GB)
△ PTH611	408 037 5607	THERMISTOR NTH11D8R0LC
<b>610 287 5249 ASSY,PWB,LIN FILTER MK6A 1AA0B10C2920B</b>		
<b>CAPACITOR</b>		
△ C601	404 081 4702	MT-POLYEST 0.22U M 275V
△ C602	404 081 4702	MT-POLYEST 0.22U M 275V
△ C603	404 081 4702	MT-POLYEST 0.22U M 275V
△ C604	404 081 4702	MT-POLYEST 0.22U M 275V
△ C606	404 059 9203	CERAMIC 1000P M 400V
<b>RESISTOR</b>		
△ R601	401 008 8607	CARBON 220K JA 1/2W
<b>COIL</b>		
△ L601	645 041 4961	LINE FILTER
△ L602	645 041 4961	LINE FILTER
<b>MISCELLANEOUS</b>		
△ F601	423 022 2102	FUSE 250V 4A
F601A	645 000 5077	HOLDER, FUSE
F601B	645 000 5077	HOLDER, FUSE
△ VA601	408 018 9808	VARISTOR ENC471D-14AS
<b>610 287 5256 ASSY,PWB,AUDIO AMP. MK6A 1AA0B10C2920C</b>		
<b>INTEGRATED CIRCUIT</b>		
IC001	409 073 1509	IC AN5265
<b>CAPACITOR</b>		
C001	403 148 0305	ELECT 470U M 16V
C002	403 049 0008	ELECT 1U M 50V
C003	403 049 0008	ELECT 1U M 50V
C004	403 041 8804	ELECT 10U M 16V
C005	403 041 8804	ELECT 10U M 16V
C006	403 044 9501	ELECT 100U M 25V
C007	403 070 2606	CERAMIC 0.1U Z 50V
C008	403 044 9501	ELECT 100U M 25V
<b>RESISTOR</b>		
R001	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R002	401 037 9309	MT-GLAZE 18K JA 1/10W
R003	401 037 7909	MT-GLAZE 1.5K JA 1/10W
R004	401 038 2200	MT-GLAZE 27K JA 1/10W
R005	401 110 8601	MT-GLAZE 1 JA 1/10W
R006	401 037 5400	MT-GLAZE 1K JA 1/10W
R007	401 069 0305	OXIDE-MT 6.8 JA 2W
	401 069 0404	OXIDE-MT 6.8 JA 2W
R008	401 037 9101	MT-GLAZE 180 JA 1/10W
R011	401 037 5004	MT-GLAZE 0.000 ZA 1/10W



## Electrical Parts List

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R012	401 037 5004	MT-GLAZE 0.000 ZA 1/10W		405 015 8704	TR 2SC2812-L6-TB
<b>DIODE</b>				405 015 8902	TR 2SC2812-L7-TB
D001	407 206 5509	ZD UDZS-TE-179.1B	Q5003	405 014 4509	TR 2SC2412K T146 R
	407 187 7905	ZENER DIODE UDZ9.1B-TE-17		405 014 4608	TR 2SC2412K T146 S
D002	407 206 6308	ZD UDZS-TE-175.1B		405 015 8704	TR 2SC2812-L6-TB
	407 179 1706	ZENER DIODE UDZ5.1B-TE-17		405 015 8902	TR 2SC2812-L7-TB
D003	407 149 0807	DIODE 1SS355-TE-17	Q5004	405 014 4509	TR 2SC2412K T146 R
				405 014 4608	TR 2SC2412K T146 S
				405 015 8704	TR 2SC2812-L6-TB
				405 015 8902	TR 2SC2812-L7-TB
<b>610 290 0026 ASSY,PWB,MAIN M4GA</b>			Q5006	405 014 4509	TR 2SC2412K T146 R
<b>1AA0B10C293GA</b>				405 014 4608	TR 2SC2412K T146 S
				405 015 8704	TR 2SC2812-L6-TB
				405 015 8902	TR 2SC2812-L7-TB
<b>TRANSISTOR</b>			Q5007	405 014 4509	TR 2SC2412K T146 R
Q1801	405 014 4509	TR 2SC2412K T146 R		405 014 4608	TR 2SC2412K T146 S
	405 014 4608	TR 2SC2412K T146 S		405 015 8704	TR 2SC2812-L6-TB
	405 015 8704	TR 2SC2812-L6-TB		405 015 8902	TR 2SC2812-L7-TB
	405 015 8902	TR 2SC2812-L7-TB	Q5008	405 014 4509	TR 2SC2412K T146 R
Q1821	405 045 8705	TR 2SK536-TB		405 014 4608	TR 2SC2412K T146 S
Q1822	405 045 8705	TR 2SK536-TB		405 015 8704	TR 2SC2812-L6-TB
Q1881	405 045 8705	TR 2SK536-TB		405 015 8902	TR 2SC2812-L7-TB
Q2501	405 014 4509	TR 2SC2412K T146 R	Q5041	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S		405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB		405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB		405 015 8902	TR 2SC2812-L7-TB
Q2851	405 014 4509	TR 2SC2412K T146 R	Q5042	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S		405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB		405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB		405 015 8902	TR 2SC2812-L7-TB
Q2852	405 014 4509	TR 2SC2412K T146 R	Q5201	405 134 5905	TR 2SA1037AK-T146-R
	405 014 4608	TR 2SC2412K T146 S		405 147 2205	TR 2SA1037AK-S-T146
	405 015 8704	TR 2SC2812-L6-TB		405 002 0308	TR 2SA1037K T146 R
	405 015 8902	TR 2SC2812-L7-TB		405 002 0407	TR 2SA1037K T146 S
Q2853	405 014 4509	TR 2SC2412K T146 R		405 002 6706	TR 2SA1179-M6-TB
	405 014 4608	TR 2SC2412K T146 S		405 002 6904	TR 2SA1179-M7-TB
	405 015 8704	TR 2SC2812-L6-TB	Q5202	405 134 5905	TR 2SA1037AK-T146-R
	405 015 8902	TR 2SC2812-L7-TB		405 147 2205	TR 2SA1037AK-S-T146
Q2854	405 134 5905	TR 2SA1037AK-T146-R		405 002 0308	TR 2SA1037K T146 R
	405 147 2205	TR 2SA1037AK-S-T146		405 002 0407	TR 2SA1037K T146 S
	405 002 0308	TR 2SA1037K T146 R		405 002 6706	TR 2SA1179-M6-TB
	405 002 0407	TR 2SA1037K T146 S		405 002 6904	TR 2SA1179-M7-TB
	405 002 6706	TR 2SA1179-M6-TB	Q5203	405 134 5905	TR 2SA1037AK-T146-R
	405 002 6904	TR 2SA1179-M7-TB		405 147 2205	TR 2SA1037AK-S-T146
Q303	405 014 4509	TR 2SC2412K T146 R		405 002 0308	TR 2SA1037K T146 R
	405 014 4608	TR 2SC2412K T146 S		405 002 0407	TR 2SA1037K T146 S
	405 015 8704	TR 2SC2812-L6-TB		405 002 6706	TR 2SA1179-M6-TB
	405 015 8902	TR 2SC2812-L7-TB		405 002 6904	TR 2SA1179-M7-TB
Q3501	405 002 8304	TR 2SA1203-Y-TE12L	Q5204	405 134 5905	TR 2SA1037AK-T146-R
Q3502	405 014 4509	TR 2SC2412K T146 R		405 147 2205	TR 2SA1037AK-S-T146
	405 014 4608	TR 2SC2412K T146 S		405 002 0308	TR 2SA1037K T146 R
	405 015 8704	TR 2SC2812-L6-TB		405 002 0407	TR 2SA1037K T146 S
	405 015 8902	TR 2SC2812-L7-TB		405 002 6706	TR 2SA1179-M6-TB
Q371	405 014 4509	TR 2SC2412K T146 R		405 002 6904	TR 2SA1179-M7-TB
	405 014 4608	TR 2SC2412K T146 S	Q5211	405 014 4509	TR 2SC2412K T146 R
	405 015 8704	TR 2SC2812-L6-TB		405 014 4608	TR 2SC2412K T146 S
	405 015 8902	TR 2SC2812-L7-TB		405 015 8704	TR 2SC2812-L6-TB
Q451	405 014 4509	TR 2SC2412K T146 R		405 015 8902	TR 2SC2812-L7-TB
	405 014 4608	TR 2SC2412K T146 S	Q5251	405 014 4509	TR 2SC2412K T146 R
	405 015 8704	TR 2SC2812-L6-TB		405 014 4608	TR 2SC2412K T146 S
	405 015 8902	TR 2SC2812-L7-TB		405 015 8704	TR 2SC2812-L6-TB
Q5001	405 014 4509	TR 2SC2412K T146 R		405 015 8902	TR 2SC2812-L7-TB
	405 014 4608	TR 2SC2412K T146 S	Q5252	405 014 4509	TR 2SC2412K T146 R
	405 015 8704	TR 2SC2812-L6-TB		405 014 4608	TR 2SC2412K T146 S
	405 015 8902	TR 2SC2812-L7-TB		405 015 8704	TR 2SC2812-L6-TB
Q5002	405 014 4509	TR 2SC2412K T146 R		405 015 8902	TR 2SC2812-L7-TB
	405 014 4608	TR 2SC2412K T146 S	Q5253	405 014 4509	TR 2SC2412K T146 R



## Electrical Parts List

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
Q5296	405 014 4608	TR 2SC2412K T146 S	IC3371	410 315 5308	IC MC74ACT244DT
	405 015 8704	TR 2SC2812-L6-TB	IC3381	410 315 5308	IC MC74ACT244DT
	405 015 8902	TR 2SC2812-L7-TB	IC3391	410 315 5308	IC MC74ACT244DT
	405 134 5905	TR 2SA1037AK-T146-R	IC3392	409 330 2508	IC TC7SH04FU-(TE85L)
	405 147 2205	TR 2SA1037AK-S-T146		410 356 7606	IC SN74AHC1G04HDCKR
	405 002 0308	TR 2SA1037K T146 R	IC3501	409 472 6303	IC ET1030FOA
Q6601	405 002 0407	TR 2SA1037K T146 S	IC351	410 337 0503	IC TC74LCX14FT
	405 002 6706	TR 2SA1179-M6-TB		410 337 0602	IC HD74LVCL14T
	405 002 6904	TR 2SA1179-M7-TB	IC3531	409 472 6303	IC ET1030FOA
	405 014 4509	TR 2SC2412K T146 R	IC3532	409 390 0001	IC LM7171AIMX
	405 014 4608	TR 2SC2412K T146 S		409 486 7709	IC LM7171BIMX
	405 015 8704	TR 2SC2812-L6-TB	IC3561	409 472 6303	IC ET1030FOA
Q6602	405 015 8902	TR 2SC2812-L7-TB	IC3581	409 343 0201	IC LT1206CS8
	405 014 4509	TR 2SC2412K T146 R	IC3801	410 275 5707	IC TWM7000-162020
	405 014 4608	TR 2SC2412K T146 S		410 275 5806	IC TWM7000-162020
	405 015 8704	TR 2SC2812-L6-TB	IC3841	410 296 5700	IC TWM7000-151020
	405 015 8902	TR 2SC2812-L7-TB	IC3861	410 296 2402	IC TMP47C101M-JV45
	405 014 4509	TR 2SC2412K T146 R	IC3862	409 344 1900	IC MN1382-Q-TX
Q6612	405 014 4608	TR 2SC2412K T146 S	IC3871	409 380 6303	IC HIN232CB
	405 015 8704	TR 2SC2812-L6-TB		409 273 3501	IC SP232ACT
	405 015 8902	TR 2SC2812-L7-TB	IC401	409 419 2603	IC CXA2111R
	405 014 4509	TR 2SC2412K T146 R	IC411	409 330 2508	IC TC7SH04FU-(TE85L)
	405 014 4608	TR 2SC2412K T146 S		410 356 7606	IC SN74AHC1G04HDCKR
	405 015 8704	TR 2SC2812-L6-TB	IC431	409 326 3007	IC M62358FP
Q7281	405 015 8902	TR 2SC2812-L7-TB	IC451	409 398 1901	IC L88MS05TL-TL
	405 014 4509	TR 2SC2412K T146 R	IC471	409 460 8302	IC CXD3503R
	405 014 4608	TR 2SC2412K T146 S	IC472	409 398 1901	IC L88MS05TL-TL
	405 015 8704	TR 2SC2812-L6-TB	IC5001	409 051 2900	IC TC4053BF(EL)
	405 015 8902	TR 2SC2812-L7-TB	IC501	409 476 8808	IC CXA3512R
	405 045 8705	TR 2SK536-TB	IC5101	409 478 2507	IC SAA7114H
Q851			IC5201	409 407 7900	IC EL4332CS
			IC5251	409 461 7304	IC AD8057ART
			IC5252	409 461 7304	IC AD8057ART
			IC5253	409 461 7304	IC AD8057ART
			IC5281	409 407 7900	IC EL4332CS
			IC5282	409 400 7105	IC TC7W53FU-(TE12L)
<b>INTEGRATED CIRCUIT</b>			IC531	409 476 8808	IC CXA3512R
IC1501	409 419 3709	IC MC10H351ML1	IC561	409 476 8808	IC CXA3512R
IC1801	409 330 2508	IC TC7SH04FU-(TE85L)	IC6101	410 386 9205	IC LC24193AT-TH5
	410 356 7606	IC SN74AHC1G04HDCKR	IC6102	409 344 1900	IC MN1382-Q-TX
IC1802	410 381 4403	IC TC7W32FU(TE12L)	IC6601	409 481 8503	IC AD8400AR1
IC1803	410 346 8804	IC TC74LCX574FT	IC6901	410 386 4804	IC EPM3128ATC100-10
IC1804	410 346 8804	IC TC74LCX574FT	IC7221	410 337 0503	IC TC74LCX14FT
IC1806	410 346 8804	IC TC74LCX574FT		410 337 0602	IC HD74LVCL14T
IC1807	410 346 8804	IC TC74LCX574FT	IC7241	409 461 7304	IC AD8057ART
IC1808	410 362 6501	IC TC74LCX541FT	IC7251	409 461 7304	IC AD8057ART
IC1809	410 362 6501	IC TC74LCX541FT	IC7261	409 461 7304	IC AD8057ART
IC1831	409 481 8602	IC LM76CHMX-5	IC801	410 376 7808	IC MBM29LV800TA90NB706
IC1851	409 486 6108	IC M51206FP	IC806A	410 354 3808	IC MBM29LV800TA-90PFTN
IC1951	409 461 8202	IC ER-ICS502MT	IC811	410 352 8508	IC IDT71V016S15PHTR
IC1961	409 428 7101	IC AV9155C	IC851	410 311 5708	IC MC74HCT244ADT
IC1991	409 487 5704	IC TC7SZ125FU		410 315 5506	IC HD74HCT244TV
IC202	410 388 7001	IC AD9884AKS-100		410 356 7507	IC SN74HCT244PWR
IC2200	410 308 6404	IC MB40988PFQ-G-MSBND	IC861	410 325 4605	IC TC74LCX244FT
IC2211	409 461 7304	IC AD8057ART	<b>CAPACITOR</b>		
IC2221	409 461 7304	IC AD8057ART	C1501	403 164 0204	CERAMIC 0.1U Z 25V
IC2231	409 461 7304	IC AD8057ART	C1502	403 322 7809	ELECT 220U M 6.3V
IC231	409 416 6406	IC BA033FP-E2	C1504	403 322 7809	ELECT 220U M 6.3V
IC2601	409 416 6406	IC BA033FP-E2	C1801	403 162 4709	ELECT 10U M 16V
IC2612	409 461 7700	IC PQ2TZ15	C1802	403 164 0204	CERAMIC 0.1U Z 25V
IC2621	409 416 6406	IC BA033FP-E2	C1831	403 164 0204	CERAMIC 0.1U Z 25V
IC2622	409 416 6406	IC BA033FP-E2	C1851	403 283 6309	CERAMIC 1U Z 10V
IC2631	409 124 5708	IC L78M09T-TR	C1852	403 283 6309	CERAMIC 1U Z 10V
IC2642	409 398 1901	IC L88MS05TL-TL	C1853	403 283 6309	CERAMIC 1U Z 10V
IC2643	409 398 1901	IC L88MS05TL-TL	C1951	403 164 0204	CERAMIC 0.1U Z 25V
IC2881	410 378 7103	IC PIC12C508A-04/SM A	C1961	403 164 0204	CERAMIC 0.1U Z 25V
IC2882	410 343 7008	IC SN74AHC1G14DBVR			
IC301	409 478 2408	IC PW164-10RK			
IC302	409 339 3605	IC 24LC16BT/SN-T			
IC311	409 480 1307	IC PST573IM			
IC312	409 350 2908	IC TC7W126FU-(TE12L)			
IC321	409 400 7105	IC TC7W53FU-(TE12L)			
IC3301	409 478 1302	IC LC24049A-TA7			
IC3302	409 416 6406	IC BA033FP-E2			
IC3321	410 325 4605	IC TC74LCX244FT			
IC3331	410 315 5308	IC MC74ACT244DT			

## Electrical Parts List

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
C1962	403 322 7809	ELECT 220U M 6.3V	C2635	403 229 3508	ELECT 100U M 16V
C1963	403 164 0204	CERAMIC 0.1U Z 25V	C2636	403 229 3508	ELECT 100U M 16V
C1964	403 155 4204	CERAMIC 15P J 50V	C2637	403 283 6309	CERAMIC 1U Z 10V
C1965	403 164 0204	CERAMIC 0.1U Z 25V	C2638	403 322 7809	ELECT 220U M 6.3V
C1966	403 164 0204	CERAMIC 0.1U Z 25V	C2639	403 164 0204	CERAMIC 0.1U Z 25V
C1971	403 229 3508	ELECT 100U M 16V	C2654	403 322 7809	ELECT 220U M 6.3V
C1972	403 229 3508	ELECT 100U M 16V	C2656	403 164 0204	CERAMIC 0.1U Z 25V
C1973	403 322 7809	ELECT 220U M 6.3V	C2657	403 229 3508	ELECT 100U M 16V
C1991	403 164 0204	CERAMIC 0.1U Z 25V	C2658	403 229 3508	ELECT 100U M 16V
C2201	403 164 0204	CERAMIC 0.1U Z 25V	C2659	403 283 6309	CERAMIC 1U Z 10V
C2202	403 208 1402	TA-SOLID 1U M 25V	C2851	403 164 0204	CERAMIC 0.1U Z 25V
C2203	403 164 0204	CERAMIC 0.1U Z 25V	C2852	403 164 0204	CERAMIC 0.1U Z 25V
C2204	403 164 0204	CERAMIC 0.1U Z 25V	C2881	403 139 7108	CERAMIC 12P J 50V
C2206	403 322 7809	ELECT 220U M 6.3V	C2882	403 139 7108	CERAMIC 12P J 50V
C2207	403 164 0204	CERAMIC 0.1U Z 25V	C2891	403 205 2808	CERAMIC 0.047U K 25V
C2211	403 233 3808	CERAMIC 10P C 50V	C2892	403 164 0204	CERAMIC 0.1U Z 25V
C2212	403 164 0204	CERAMIC 0.1U Z 25V	C301	403 162 4709	ELECT 10U M 16V
C2221	403 233 3808	CERAMIC 10P C 50V	C302	403 164 0204	CERAMIC 0.1U Z 25V
C2222	403 164 0204	CERAMIC 0.1U Z 25V	C303	403 149 9208	CERAMIC 0.01U Z 50V
C2231	403 233 3808	CERAMIC 10P C 50V	C308	403 149 9208	CERAMIC 0.01U Z 50V
C2232	403 164 0204	CERAMIC 0.1U Z 25V	C309	403 164 0204	CERAMIC 0.1U Z 25V
C231	403 164 0204	CERAMIC 0.1U Z 25V	C311	403 322 7809	ELECT 220U M 6.3V
C232	403 175 4109	ELECT 22U M 16V	C312	403 164 0204	CERAMIC 0.1U Z 25V
C233	403 164 0204	CERAMIC 0.1U Z 25V	C313	403 322 7809	ELECT 220U M 6.3V
C234	403 162 4709	ELECT 10U M 16V	C314	403 164 0204	CERAMIC 0.1U Z 25V
C235	403 164 0204	CERAMIC 0.1U Z 25V	C315	403 164 0204	CERAMIC 0.1U Z 25V
C236	403 298 9609	CERAMIC 0.1U K 16V	C316	403 283 6309	CERAMIC 1U Z 10V
	403 325 3303	CERAMIC 0.1U K 16V	C3301	403 322 7809	ELECT 220U M 6.3V
C238	403 164 0204	CERAMIC 0.1U Z 25V	C3302	403 322 7809	ELECT 220U M 6.3V
C239	403 162 4006	ELECT 22U M 6.3V	C3303	403 164 0204	CERAMIC 0.1U Z 25V
C241	403 215 2201	CERAMIC 0.01U K 50V	C3305	403 164 0204	CERAMIC 0.1U Z 25V
C242	403 298 9609	CERAMIC 0.1U K 16V	C3306	403 322 7809	ELECT 220U M 6.3V
	403 325 3303	CERAMIC 0.1U K 16V	C3307	403 164 0204	CERAMIC 0.1U Z 25V
C243	403 298 9609	CERAMIC 0.1U K 16V	C3331	403 164 0204	CERAMIC 0.1U Z 25V
	403 325 3303	CERAMIC 0.1U K 16V	C3371	403 164 0204	CERAMIC 0.1U Z 25V
C251	403 157 3809	CERAMIC 120P J 50V	C3381	403 164 0204	CERAMIC 0.1U Z 25V
C252	403 164 0204	CERAMIC 0.1U Z 25V	C3391	403 164 0204	CERAMIC 0.1U Z 25V
C253	403 164 0204	CERAMIC 0.1U Z 25V	C3501	403 162 4709	ELECT 10U M 16V
C254	403 164 0204	CERAMIC 0.1U Z 25V	C3502	403 322 7809	ELECT 220U M 6.3V
C2561	403 341 8801	ELECT 10U M 25V	C3503	403 164 0204	CERAMIC 0.1U Z 25V
C2562	403 164 0204	CERAMIC 0.1U Z 25V	C3504	403 164 0204	CERAMIC 0.1U Z 25V
C2571	403 341 8801	ELECT 10U M 25V	C3506	403 229 3508	ELECT 100U M 16V
C2572	403 164 0204	CERAMIC 0.1U Z 25V	C3507	403 164 0204	CERAMIC 0.1U Z 25V
C2581	403 341 8801	ELECT 10U M 25V	C351	403 164 0204	CERAMIC 0.1U Z 25V
C2582	403 164 0204	CERAMIC 0.1U Z 25V	C3532	403 322 7809	ELECT 220U M 6.3V
C2601	403 164 0204	CERAMIC 0.1U Z 25V	C3533	403 164 0204	CERAMIC 0.1U Z 25V
C2602	403 322 7809	ELECT 220U M 6.3V	C3534	403 164 0204	CERAMIC 0.1U Z 25V
C2603	403 164 0204	CERAMIC 0.1U Z 25V	C3536	403 229 3508	ELECT 100U M 16V
C2606	403 229 3508	ELECT 100U M 16V	C3537	403 164 0204	CERAMIC 0.1U Z 25V
C2611	403 164 0204	CERAMIC 0.1U Z 25V	C3541	403 157 3601	CERAMIC 100P J 50V
C2612	403 164 0204	CERAMIC 0.1U Z 25V	C3561	403 164 0204	CERAMIC 0.1U Z 25V
C2613	403 164 0204	CERAMIC 0.1U Z 25V	C3562	403 322 7809	ELECT 220U M 6.3V
C2614	403 322 7809	ELECT 220U M 6.3V	C3563	403 164 0204	CERAMIC 0.1U Z 25V
C2615	403 164 0204	CERAMIC 0.1U Z 25V	C3564	403 164 0204	CERAMIC 0.1U Z 25V
C2616	403 229 3508	ELECT 100U M 16V	C3566	403 229 3508	ELECT 100U M 16V
C2618	403 229 3508	ELECT 100U M 16V	C3567	403 164 0204	CERAMIC 0.1U Z 25V
C2621	403 164 0204	CERAMIC 0.1U Z 25V	C3568	403 164 0204	CERAMIC 0.1U Z 25V
C2622	403 322 7809	ELECT 220U M 6.3V	C3581	403 157 3601	CERAMIC 100P J 50V
C2623	403 164 0204	CERAMIC 0.1U Z 25V	C3582	403 164 0204	CERAMIC 0.1U Z 25V
C2626	403 229 3508	ELECT 100U M 16V	C3583	403 229 3508	ELECT 100U M 16V
C2627	403 164 0204	CERAMIC 0.1U Z 25V	C3584	403 149 9208	CERAMIC 0.01U Z 50V
C2628	403 322 7809	ELECT 220U M 6.3V	C3802	403 283 6309	CERAMIC 1U Z 10V
C2629	403 164 0204	CERAMIC 0.1U Z 25V	C3841	403 283 6309	CERAMIC 1U Z 10V
C2630	403 229 3508	ELECT 100U M 16V	C3842	403 283 6309	CERAMIC 1U Z 10V
C2631	403 164 0204	CERAMIC 0.1U Z 25V	C3844	403 283 6309	CERAMIC 1U Z 10V
C2632	403 229 3508	ELECT 100U M 16V	C3861	403 283 6309	CERAMIC 1U Z 10V
C2633	403 164 0204	CERAMIC 0.1U Z 25V	C3864	403 162 6208	ELECT 1U M 50V

## Electrical Parts List

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
C3867	403 283 6309	CERAMIC 1U Z 10V	C5101	403 139 7306	CERAMIC 18P J 50V
C3871	403 283 6309	CERAMIC 1U Z 10V	C5102	403 139 7306	CERAMIC 18P J 50V
C3881	403 162 6208	ELECT 1U M 50V	C5104	403 205 2808	CERAMIC 0.047U K 25V
C3882	403 162 6208	ELECT 1U M 50V	C5106	403 205 2808	CERAMIC 0.047U K 25V
C3883	403 162 6208	ELECT 1U M 50V	C5107	403 205 2808	CERAMIC 0.047U K 25V
C3884	403 162 6208	ELECT 1U M 50V	C5108	403 205 2808	CERAMIC 0.047U K 25V
C401	403 164 0204	CERAMIC 0.1U Z 25V	C5109	403 205 2808	CERAMIC 0.047U K 25V
C402	403 149 9208	CERAMIC 0.01U Z 50V	C511	403 113 3805	CERAMIC 1000P K 50V
C403	403 149 9208	CERAMIC 0.01U Z 50V	C5111	403 229 3508	ELECT 100U M 16V
C404	403 149 9208	CERAMIC 0.01U Z 50V	C5112	403 164 0204	CERAMIC 0.1U Z 25V
C405	403 322 7809	ELECT 220U M 6.3V	C5113	403 229 3508	ELECT 100U M 16V
C406	403 164 0204	CERAMIC 0.1U Z 25V	C5114	403 164 0204	CERAMIC 0.1U Z 25V
C407	403 322 7809	ELECT 220U M 6.3V	C5116	403 164 0204	CERAMIC 0.1U Z 25V
C408	403 164 0204	CERAMIC 0.1U Z 25V	C5117	403 164 0204	CERAMIC 0.1U Z 25V
C409	403 164 0204	CERAMIC 0.1U Z 25V	C5118	403 164 0204	CERAMIC 0.1U Z 25V
C411	403 149 9208	CERAMIC 0.01U Z 50V	C5119	403 164 0204	CERAMIC 0.1U Z 25V
C412	403 149 9208	CERAMIC 0.01U Z 50V	C514	403 164 0204	CERAMIC 0.1U Z 25V
C413	403 149 9208	CERAMIC 0.01U Z 50V	C516	403 229 3508	ELECT 100U M 16V
C414	403 149 9208	CERAMIC 0.01U Z 50V	C517	403 164 0204	CERAMIC 0.1U Z 25V
C415	403 149 9208	CERAMIC 0.01U Z 50V	C519	403 164 0204	CERAMIC 0.1U Z 25V
C416	403 149 9208	CERAMIC 0.01U Z 50V	C5201	403 164 0204	CERAMIC 0.1U Z 25V
C417	403 164 0204	CERAMIC 0.1U Z 25V	C5202	403 322 7809	ELECT 220U M 6.3V
C431	403 229 3508	ELECT 100U M 16V	C521	403 229 3508	ELECT 100U M 16V
C432	403 149 9208	CERAMIC 0.01U Z 50V	C5212	403 283 6309	CERAMIC 1U Z 10V
C433	403 164 0204	CERAMIC 0.1U Z 25V	C5213	403 149 9208	CERAMIC 0.01U Z 50V
C434	403 175 4505	ELECT 47U M 6.3V	C5214	403 283 6309	CERAMIC 1U Z 10V
C435	403 298 9609	CERAMIC 0.1U K 16V	C5216	403 149 9208	CERAMIC 0.01U Z 50V
	403 325 3303	CERAMIC 0.1U K 16V	C5217	403 283 6309	CERAMIC 1U Z 10V
C436	403 298 9609	CERAMIC 0.1U K 16V	C5218	403 162 4006	ELECT 22U M 6.3V
	403 325 3303	CERAMIC 0.1U K 16V	C5251	403 164 0204	CERAMIC 0.1U Z 25V
C437	403 298 9609	CERAMIC 0.1U K 16V	C5252	403 322 7809	ELECT 220U M 6.3V
	403 325 3303	CERAMIC 0.1U K 16V	C5253	403 157 1904	CERAMIC 10P D 50V
C450	403 229 3508	ELECT 100U M 16V	C5255	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
C451	403 229 3508	ELECT 100U M 16V	C5257	403 322 7809	ELECT 220U M 6.3V
C452	403 322 7809	ELECT 220U M 6.3V	C5258	403 164 0204	CERAMIC 0.1U Z 25V
C453	403 283 6309	CERAMIC 1U Z 10V	C5259	403 215 2904	CERAMIC 0.022U K 25V
C454	403 164 0204	CERAMIC 0.1U Z 25V	C5263	403 157 1904	CERAMIC 10P D 50V
C470	403 322 7809	ELECT 220U M 6.3V	C5265	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
C471	403 322 7809	ELECT 220U M 6.3V	C5269	403 215 2904	CERAMIC 0.022U K 25V
C472	403 164 0204	CERAMIC 0.1U Z 25V	C5273	403 157 1904	CERAMIC 10P D 50V
C473	403 162 4709	ELECT 10U M 16V	C5275	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
C474	403 164 0204	CERAMIC 0.1U Z 25V	C5279	403 215 2904	CERAMIC 0.022U K 25V
C475	403 283 6309	CERAMIC 1U Z 10V	C5281	403 164 0204	CERAMIC 0.1U Z 25V
C476	403 341 3905	POS-SOLID 100U M 6.3V	C5282	403 149 9208	CERAMIC 0.01U Z 50V
C481	403 157 2901	CERAMIC 47P J 50V	C5283	403 164 0204	CERAMIC 0.1U Z 25V
C483	403 164 0204	CERAMIC 0.1U Z 25V	C5284	403 164 0204	CERAMIC 0.1U Z 25V
C484	403 164 0204	CERAMIC 0.1U Z 25V	C5287	403 157 4202	CERAMIC 220P J 50V
C5001	403 205 7803	TA-SOLID 2.2U M 16V	C5288	403 162 4006	ELECT 22U M 6.3V
C5002	403 205 7803	TA-SOLID 2.2U M 16V	C5289	403 322 7809	ELECT 220U M 6.3V
C5003	403 205 7803	TA-SOLID 2.2U M 16V	C531	403 164 0204	CERAMIC 0.1U Z 25V
C5004	403 205 7803	TA-SOLID 2.2U M 16V	C532	403 162 4709	ELECT 10U M 16V
C5006	403 205 7803	TA-SOLID 2.2U M 16V	C533	403 164 0204	CERAMIC 0.1U Z 25V
C5007	403 343 8809	CERAMIC 0.47U Z 16V	C534	403 164 0204	CERAMIC 0.1U Z 25V
C5008	403 343 8809	CERAMIC 0.47U Z 16V	C536	403 157 3106	CERAMIC 56P J 50V
C5009	403 162 4709	ELECT 10U M 16V	C537	403 155 1609	CERAMIC 33P J 50V
C501	403 164 0204	CERAMIC 0.1U Z 25V	C539	403 215 0900	CERAMIC 390P J 50V
C5010	403 322 7809	ELECT 220U M 6.3V	C541	403 113 3805	CERAMIC 1000P K 50V
C5011	403 343 8809	CERAMIC 0.47U Z 16V	C544	403 164 0204	CERAMIC 0.1U Z 25V
C5012	403 162 4709	ELECT 10U M 16V	C546	403 229 3508	ELECT 100U M 16V
C5013	403 162 4709	ELECT 10U M 16V	C547	403 164 0204	CERAMIC 0.1U Z 25V
C5014	403 322 7809	ELECT 220U M 6.3V	C549	403 164 0204	CERAMIC 0.1U Z 25V
C502	403 162 4709	ELECT 10U M 16V	C551	403 229 3508	ELECT 100U M 16V
C503	403 164 0204	CERAMIC 0.1U Z 25V	C561	403 164 0204	CERAMIC 0.1U Z 25V
C504	403 164 0204	CERAMIC 0.1U Z 25V	C562	403 162 4709	ELECT 10U M 16V
C506	403 157 3106	CERAMIC 56P J 50V	C563	403 164 0204	CERAMIC 0.1U Z 25V
C507	403 155 1609	CERAMIC 33P J 50V	C564	403 164 0204	CERAMIC 0.1U Z 25V
C509	403 215 0900	CERAMIC 390P J 50V	C566	403 157 3106	CERAMIC 56P J 50V

## Electrical Parts List

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
C567	403 155 1609	CERAMIC 33P J 50V		645 024 7477	R-NETWORK 0X4 1/16W
C569	403 215 0900	CERAMIC 390P J 50V	RB561	645 037 0656	R-NETWORK 0X4 0.063W
C571	403 113 3805	CERAMIC 1000P K 50V		645 024 7477	R-NETWORK 0X4 1/16W
C574	403 164 0204	CERAMIC 0.1U Z 25V	RB562	645 037 0656	R-NETWORK 0X4 0.063W
C576	403 229 3508	ELECT 100U M 16V		645 024 7477	R-NETWORK 0X4 1/16W
C577	403 164 0204	CERAMIC 0.1U Z 25V	RB6101	645 021 0358	R-NETWORK 100X4 0.063W
C579	403 164 0204	CERAMIC 0.1U Z 25V		645 031 3325	R-NETWORK 100X4 1/16W
C581	403 229 3508	ELECT 100U M 16V	RB6102	645 021 0358	R-NETWORK 100X4 0.063W
C6101	403 283 6309	CERAMIC 1U Z 10V		645 031 3325	R-NETWORK 100X4 1/16W
C6102	403 164 0204	CERAMIC 0.1U Z 25V	RB6103	645 021 0358	R-NETWORK 100X4 0.063W
C6103	403 164 0204	CERAMIC 0.1U Z 25V		645 031 3325	R-NETWORK 100X4 1/16W
C6104	403 164 0204	CERAMIC 0.1U Z 25V	RB6104	645 021 0358	R-NETWORK 100X4 0.063W
C6105	403 229 3508	ELECT 100U M 16V		645 031 3325	R-NETWORK 100X4 1/16W
C6106	403 164 0204	CERAMIC 0.1U Z 25V	RB6106	645 021 0358	R-NETWORK 100X4 0.063W
C6112	403 164 0204	CERAMIC 0.1U Z 25V		645 031 3325	R-NETWORK 100X4 1/16W
C6113	403 164 0204	CERAMIC 0.1U Z 25V	RB6107	645 021 0358	R-NETWORK 100X4 0.063W
C6114	403 164 0204	CERAMIC 0.1U Z 25V		645 031 3325	R-NETWORK 100X4 1/16W
C6116	403 164 0204	CERAMIC 0.1U Z 25V	RB6108	645 021 0358	R-NETWORK 100X4 0.063W
C6601	403 164 0204	CERAMIC 0.1U Z 25V		645 031 3325	R-NETWORK 100X4 1/16W
C6611	403 229 3508	ELECT 100U M 16V	RB6109	645 021 0358	R-NETWORK 100X4 0.063W
C6612	403 229 3508	ELECT 100U M 16V		645 031 3325	R-NETWORK 100X4 1/16W
C6613	403 229 3508	ELECT 100U M 16V	RB6111	645 021 0358	R-NETWORK 100X4 0.063W
C6901	403 164 0204	CERAMIC 0.1U Z 25V		645 031 3325	R-NETWORK 100X4 1/16W
C6902	403 164 0204	CERAMIC 0.1U Z 25V	RB6112	645 021 0358	R-NETWORK 100X4 0.063W
C6903	403 164 0204	CERAMIC 0.1U Z 25V		645 031 3325	R-NETWORK 100X4 1/16W
C6904	403 164 0204	CERAMIC 0.1U Z 25V	RB6113	645 021 0358	R-NETWORK 100X4 0.063W
C6906	403 164 0204	CERAMIC 0.1U Z 25V		645 031 3325	R-NETWORK 100X4 1/16W
C6907	403 164 0204	CERAMIC 0.1U Z 25V	RB6114	645 021 0358	R-NETWORK 100X4 0.063W
C6908	403 164 0204	CERAMIC 0.1U Z 25V		645 031 3325	R-NETWORK 100X4 1/16W
C6911	403 229 3508	ELECT 100U M 16V	RB6116	645 021 0358	R-NETWORK 100X4 0.063W
C6912	403 164 0204	CERAMIC 0.1U Z 25V		645 031 3325	R-NETWORK 100X4 1/16W
C7221	403 157 3809	CERAMIC 120P J 50V	RB6117	645 021 0358	R-NETWORK 100X4 0.063W
C7222	403 149 9208	CERAMIC 0.01U Z 50V		645 031 3325	R-NETWORK 100X4 1/16W
C7225	403 157 3809	CERAMIC 120P J 50V	RB6118	645 021 0358	R-NETWORK 100X4 0.063W
C7226	403 157 3809	CERAMIC 120P J 50V		645 031 3325	R-NETWORK 100X4 1/16W
C7241	403 157 1904	CERAMIC 10P D 50V	RB6119	645 021 0358	R-NETWORK 100X4 0.063W
C7242TM	403 283 6309	CERAMIC 1U Z 10V		645 031 3325	R-NETWORK 100X4 1/16W
C7251	403 157 1904	CERAMIC 10P D 50V	RB6121	645 021 0358	R-NETWORK 100X4 0.063W
C7261	403 157 1904	CERAMIC 10P D 50V		645 031 3325	R-NETWORK 100X4 1/16W
C7271	403 164 0204	CERAMIC 0.1U Z 25V	RB6122	645 021 0358	R-NETWORK 100X4 0.063W
C7272	403 322 7809	ELECT 220U M 6.3V		645 031 3325	R-NETWORK 100X4 1/16W
C7273	403 322 7809	ELECT 220U M 6.3V	RB6123	645 021 0358	R-NETWORK 100X4 0.063W
C7274	403 164 0204	CERAMIC 0.1U Z 25V		645 031 3325	R-NETWORK 100X4 1/16W
C7281	401 035 4108	MT-GLAZE 0.000 ZA 1/8W	RB6124	645 021 0358	R-NETWORK 100X4 0.063W
C806	403 322 7809	ELECT 220U M 6.3V		645 031 3325	R-NETWORK 100X4 1/16W
C807	403 164 0204	CERAMIC 0.1U Z 25V	RB6126	645 021 0358	R-NETWORK 100X4 0.063W
C811	403 175 3300	ELECT 47U M 16V		645 031 3325	R-NETWORK 100X4 1/16W
C812	403 164 0204	CERAMIC 0.1U Z 25V	RB6127	645 021 0358	R-NETWORK 100X4 0.063W
C851	403 164 0204	CERAMIC 0.1U Z 25V		645 031 3325	R-NETWORK 100X4 1/16W
C861	403 164 0204	CERAMIC 0.1U Z 25V	RB6128	645 021 0358	R-NETWORK 100X4 0.063W
				645 031 3325	R-NETWORK 100X4 1/16W
			RB6129	645 021 0358	R-NETWORK 100X4 0.063W
				645 031 3325	R-NETWORK 100X4 1/16W
			RB851	645 020 7822	R-NETWORK 10KX4 0.063W
				645 025 5380	R-NETWORK 10KX4 1/16W
			RB852	645 020 7822	R-NETWORK 10KX4 0.063W
				645 025 5380	R-NETWORK 10KX4 1/16W
			R1506	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
			R1507	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
			R1508	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
			R1509	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
			R1511	401 105 4007	MT-GLAZE 330 JA 1/16W
			R1512	401 105 4007	MT-GLAZE 330 JA 1/16W
			R1513	401 105 4007	MT-GLAZE 330 JA 1/16W
			R1514	401 105 4007	MT-GLAZE 330 JA 1/16W
			R1516	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
			R1517	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
<b>RESISTOR</b>					
RB1801	645 020 7822	R-NETWORK 10KX4 0.063W			
	645 025 5380	R-NETWORK 10KX4 1/16W			
RB1802	645 020 7822	R-NETWORK 10KX4 0.063W			
	645 025 5380	R-NETWORK 10KX4 1/16W			
RB3841	645 020 7822	R-NETWORK 10KX4 0.063W			
	645 025 5380	R-NETWORK 10KX4 1/16W			
RB3861	645 020 7822	R-NETWORK 10KX4 0.063W			
	645 025 5380	R-NETWORK 10KX4 1/16W			
RB501	645 037 0656	R-NETWORK 0X4 0.063W			
	645 024 7477	R-NETWORK 0X4 1/16W			
RB502	645 037 0656	R-NETWORK 0X4 0.063W			
	645 024 7477	R-NETWORK 0X4 1/16W			
RB531	645 037 0656	R-NETWORK 0X4 0.063W			
	645 024 7477	R-NETWORK 0X4 1/16W			
RB532	645 037 0656	R-NETWORK 0X4 0.063W			

## Electrical Parts List

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R1518	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2238	401 113 4402	MT-GLAZE 75 JA 1/16W
R1522	401 105 4007	MT-GLAZE 330 JA 1/16W	R241	401 105 0405	MT-GLAZE 100 JA 1/16W
R1523	401 105 4007	MT-GLAZE 330 JA 1/16W	R242	401 105 0405	MT-GLAZE 100 JA 1/16W
R1801	401 105 2805	MT-GLAZE 2.2K JA 1/16W	R244	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1802	401 105 2805	MT-GLAZE 2.2K JA 1/16W	R246	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1803	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R248	401 105 0603	MT-GLAZE 10K JA 1/16W
R1807	401 105 0603	MT-GLAZE 10K JA 1/16W	R249	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1808	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2516	401 105 5400	MT-GLAZE 47K JA 1/16W
R1809	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2517	401 105 4205	MT-GLAZE 33K JA 1/16W
R1810	401 038 5805	MT-GLAZE 430 JA 1/10W	R2518	401 105 0603	MT-GLAZE 10K JA 1/16W
R1811	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2519	401 105 5400	MT-GLAZE 47K JA 1/16W
R1823	401 105 0603	MT-GLAZE 10K JA 1/16W	R2533	401 105 5400	MT-GLAZE 47K JA 1/16W
R1826	401 105 5301	MT-GLAZE 4.7K JA 1/16W	R2537	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1827	401 105 2904	MT-GLAZE 22K JA 1/16W	R254	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1828	401 105 8203	MT-GLAZE 68K JA 1/16W	R2541	401 105 0306	MT-GLAZE 10 JA 1/16W
R1833	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2547	401 105 0306	MT-GLAZE 10 JA 1/16W
R1836	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R255	401 105 0405	MT-GLAZE 100 JA 1/16W
R1839	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R256	401 105 0405	MT-GLAZE 100 JA 1/16W
R1841	401 105 0603	MT-GLAZE 10K JA 1/16W	R2561	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1842	401 105 0603	MT-GLAZE 10K JA 1/16W	R2562	401 105 7305	MT-GLAZE 820 JA 1/16W
R1843	401 105 0603	MT-GLAZE 10K JA 1/16W	R2571	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1844	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2572	401 105 7305	MT-GLAZE 820 JA 1/16W
R1848	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R258	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1851	401 105 0603	MT-GLAZE 10K JA 1/16W	R2581	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1852	401 105 1105	MT-GLAZE 12K JA 1/16W	R2582	401 105 7305	MT-GLAZE 820 JA 1/16W
R1853	401 105 0405	MT-GLAZE 100 JA 1/16W	R2603	401 102 7506	MT-GLAZE 22 JA 1W
R1854	401 105 2508	MT-GLAZE 20K JA 1/16W	R2604	401 102 7506	MT-GLAZE 22 JA 1W
R1856	401 105 0306	MT-GLAZE 10 JA 1/16W	R2606	401 102 7506	MT-GLAZE 22 JA 1W
R1857	401 105 0306	MT-GLAZE 10 JA 1/16W	R2607	401 102 7506	MT-GLAZE 22 JA 1W
R1858	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2608	401 102 7506	MT-GLAZE 22 JA 1W
R1862	401 105 0603	MT-GLAZE 10K JA 1/16W	R2611	401 105 0405	MT-GLAZE 100 JA 1/16W
R1864	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2612	401 102 7605	MT-GLAZE 27 JA 1W
R1868	401 105 5301	MT-GLAZE 4.7K JA 1/16W	R2613	401 102 7605	MT-GLAZE 27 JA 1W
R1879	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2616	401 102 7605	MT-GLAZE 27 JA 1W
R1884	401 105 0603	MT-GLAZE 10K JA 1/16W	R2617	401 102 7605	MT-GLAZE 27 JA 1W
R1952	401 105 0603	MT-GLAZE 10K JA 1/16W	R2618	401 102 7605	MT-GLAZE 27 JA 1W
R1953	401 105 0603	MT-GLAZE 10K JA 1/16W	R2633	401 198 7909	MT-GLAZE 47 JA 1W
R1955	401 105 0405	MT-GLAZE 100 JA 1/16W	R2851	401 105 4502	MT-GLAZE 390 JA 1/16W
R1957	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2852	401 105 4502	MT-GLAZE 390 JA 1/16W
R1960	401 105 6605	MT-GLAZE 6.8K JA 1/16W	R2853	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1962	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2855	401 105 0504	MT-GLAZE 1K JA 1/16W
R1963	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2857	401 105 0504	MT-GLAZE 1K JA 1/16W
R1964	401 105 0603	MT-GLAZE 10K JA 1/16W	R2859	401 105 0504	MT-GLAZE 1K JA 1/16W
R1967	401 105 0603	MT-GLAZE 10K JA 1/16W	R2861	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R1969	401 105 0603	MT-GLAZE 10K JA 1/16W	R2862	401 105 5301	MT-GLAZE 4.7K JA 1/16W
△ R1971	402 080 7007	FUSIBLE RES 1.8 JH 1/4W	R2864	401 105 0504	MT-GLAZE 1K JA 1/16W
△ R1972	402 080 7007	FUSIBLE RES 1.8 JH 1/4W	R2870	401 105 2904	MT-GLAZE 22K JA 1/16W
△ R1973	402 083 2207	FUSIBLE RES 4.7 JH 1/4W	R2871	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
△ R1974	402 083 2207	FUSIBLE RES 4.7 JH 1/4W	R2872	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
△ R1975	402 080 7007	FUSIBLE RES 1.8 JH 1/4W	R2873	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1992	401 105 0306	MT-GLAZE 10 JA 1/16W	R2874	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1994	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2875	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1995	401 105 5103	MT-GLAZE 47 JA 1/16W	R2876	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1996	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2877	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R218	401 105 0405	MT-GLAZE 100 JA 1/16W	R2878	401 105 0405	MT-GLAZE 100 JA 1/16W
R2201	401 234 8600	MT-GLAZE 8.2K FA 1/16W	R2879	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2202	401 105 0603	MT-GLAZE 10K JA 1/16W	R2880	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2203	401 105 4106	MT-GLAZE 3.3K JA 1/16W	R2881	401 105 0603	MT-GLAZE 10K JA 1/16W
R2207	401 105 5103	MT-GLAZE 47 JA 1/16W	R2883	401 105 0603	MT-GLAZE 10K JA 1/16W
R2212	401 105 5202	MT-GLAZE 470 JA 1/16W	R2884	401 105 0405	MT-GLAZE 100 JA 1/16W
R2213	401 105 4502	MT-GLAZE 390 JA 1/16W	R2887	401 105 0405	MT-GLAZE 100 JA 1/16W
R2222	401 105 5202	MT-GLAZE 470 JA 1/16W	R2891	401 105 0504	MT-GLAZE 1K JA 1/16W
R2223	401 105 4502	MT-GLAZE 390 JA 1/16W	R2892	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2232	401 105 5202	MT-GLAZE 470 JA 1/16W	R2893	401 105 0603	MT-GLAZE 10K JA 1/16W
R2233	401 105 4502	MT-GLAZE 390 JA 1/16W	R2896	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2236	401 113 4402	MT-GLAZE 75 JA 1/16W	R2897	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2237	401 113 4402	MT-GLAZE 75 JA 1/16W	R301	401 105 0603	MT-GLAZE 10K JA 1/16W

## Electrical Parts List

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R302	401 105 0603	MT-GLAZE 10K JA 1/16W	R3378	401 105 5103	MT-GLAZE 47 JA 1/16W
R303	401 105 0405	MT-GLAZE 100 JA 1/16W	R3379	401 105 5103	MT-GLAZE 47 JA 1/16W
R304	401 105 2805	MT-GLAZE 2.2K JA 1/16W	R338	401 105 0306	MT-GLAZE 10 JA 1/16W
R305	401 105 0603	MT-GLAZE 10K JA 1/16W	R3381	401 105 5103	MT-GLAZE 47 JA 1/16W
R307	401 105 0306	MT-GLAZE 10 JA 1/16W	R3382	401 105 0306	MT-GLAZE 10 JA 1/16W
R308	401 105 5905	MT-GLAZE 560 JA 1/16W	R3383	401 105 5103	MT-GLAZE 47 JA 1/16W
R309	401 113 5904	MT-GLAZE 1.3K JA 1/16W	R3384	401 105 0306	MT-GLAZE 10 JA 1/16W
R311	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3386	401 105 5103	MT-GLAZE 47 JA 1/16W
R314	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3387	401 105 0306	MT-GLAZE 10 JA 1/16W
R316	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3388	401 105 0306	MT-GLAZE 10 JA 1/16W
R317	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3389	401 105 0306	MT-GLAZE 10 JA 1/16W
R318	401 105 5509	MT-GLAZE 470K JA 1/16W	R339	401 105 0306	MT-GLAZE 10 JA 1/16W
R321	401 105 0603	MT-GLAZE 10K JA 1/16W	R3390	401 105 0306	MT-GLAZE 10 JA 1/16W
R324	401 037 5004	MT-GLAZE 0.000 ZA 1/10W	R3391	401 105 0306	MT-GLAZE 10 JA 1/16W
R327	401 105 0603	MT-GLAZE 10K JA 1/16W	R3392	401 105 0306	MT-GLAZE 10 JA 1/16W
R329	401 105 0603	MT-GLAZE 10K JA 1/16W	R3393	401 105 0306	MT-GLAZE 10 JA 1/16W
R3301	401 035 4108	MT-GLAZE 0.000 ZA 1/8W	R3394	401 105 0306	MT-GLAZE 10 JA 1/16W
R3302	401 035 4108	MT-GLAZE 0.000 ZA 1/8W	R3396	401 105 5103	MT-GLAZE 47 JA 1/16W
R3304	401 105 0603	MT-GLAZE 10K JA 1/16W	R3397	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R3306	401 105 0603	MT-GLAZE 10K JA 1/16W	R3399	401 105 0306	MT-GLAZE 10 JA 1/16W
R3307	401 105 0306	MT-GLAZE 10 JA 1/16W	R340	401 105 0603	MT-GLAZE 10K JA 1/16W
R3308	401 105 0306	MT-GLAZE 10 JA 1/16W	R3402	401 105 0603	MT-GLAZE 10K JA 1/16W
R3309	401 105 0306	MT-GLAZE 10 JA 1/16W	R3404	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3310	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R343	401 105 0603	MT-GLAZE 10K JA 1/16W
R3314	401 105 0306	MT-GLAZE 10 JA 1/16W	R346	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3315	401 105 0603	MT-GLAZE 10K JA 1/16W	R349	401 105 0603	MT-GLAZE 10K JA 1/16W
R3316	401 105 0306	MT-GLAZE 10 JA 1/16W	R350	401 105 0306	MT-GLAZE 10 JA 1/16W
R3317	401 105 0306	MT-GLAZE 10 JA 1/16W	R3501	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R3319	401 105 0306	MT-GLAZE 10 JA 1/16W	R3502	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R332	401 105 0603	MT-GLAZE 10K JA 1/16W	R3503	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R3321	401 105 0306	MT-GLAZE 10 JA 1/16W	R3504	401 105 0603	MT-GLAZE 10K JA 1/16W
R3322	401 105 0306	MT-GLAZE 10 JA 1/16W	R3506	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3323	401 105 0306	MT-GLAZE 10 JA 1/16W	R3507	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3324	401 105 0306	MT-GLAZE 10 JA 1/16W	R351	401 105 0603	MT-GLAZE 10K JA 1/16W
R3326	401 105 0306	MT-GLAZE 10 JA 1/16W	R3511	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3327	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3512	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3328	401 105 0306	MT-GLAZE 10 JA 1/16W	R3513	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3329	401 105 0306	MT-GLAZE 10 JA 1/16W	R3521	401 105 0306	MT-GLAZE 10 JA 1/16W
R3331	401 105 0306	MT-GLAZE 10 JA 1/16W	R3522	401 105 0306	MT-GLAZE 10 JA 1/16W
R3333	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3523	401 105 0306	MT-GLAZE 10 JA 1/16W
R3334	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3524	401 105 0306	MT-GLAZE 10 JA 1/16W
R3336	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3526	401 105 0306	MT-GLAZE 10 JA 1/16W
R3337	401 105 0306	MT-GLAZE 10 JA 1/16W	R3527	401 105 0306	MT-GLAZE 10 JA 1/16W
R3339	401 105 0306	MT-GLAZE 10 JA 1/16W	R3528	401 105 0306	MT-GLAZE 10 JA 1/16W
R334	401 105 0603	MT-GLAZE 10K JA 1/16W	R3529	401 105 0306	MT-GLAZE 10 JA 1/16W
R3341	401 105 0603	MT-GLAZE 10K JA 1/16W	R353	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3342	401 105 0306	MT-GLAZE 10 JA 1/16W	R3531	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3343	401 105 0306	MT-GLAZE 10 JA 1/16W	R3532	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3346	401 105 0306	MT-GLAZE 10 JA 1/16W	R3533	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3348	401 105 0306	MT-GLAZE 10 JA 1/16W	R3534	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3349	401 105 0603	MT-GLAZE 10K JA 1/16W	R3536	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R335	401 105 0306	MT-GLAZE 10 JA 1/16W	R3537	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3351	401 105 5103	MT-GLAZE 47 JA 1/16W	R3538	401 105 0504	MT-GLAZE 1K JA 1/16W
R3354	401 105 5103	MT-GLAZE 47 JA 1/16W	R3539	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R336	401 105 0306	MT-GLAZE 10 JA 1/16W	R354	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3360	401 105 5103	MT-GLAZE 47 JA 1/16W	R3542	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3361	401 105 0306	MT-GLAZE 10 JA 1/16W	R3543	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3362	401 105 0306	MT-GLAZE 10 JA 1/16W	R3546	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3363	401 105 0306	MT-GLAZE 10 JA 1/16W	R3549	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3364	401 105 0306	MT-GLAZE 10 JA 1/16W	R3551	401 105 0306	MT-GLAZE 10 JA 1/16W
R337	401 105 0306	MT-GLAZE 10 JA 1/16W	R3552	401 105 0306	MT-GLAZE 10 JA 1/16W
R3371	401 105 0306	MT-GLAZE 10 JA 1/16W	R3553	401 105 0306	MT-GLAZE 10 JA 1/16W
R3372	401 105 0306	MT-GLAZE 10 JA 1/16W	R3554	401 105 0306	MT-GLAZE 10 JA 1/16W
R3373	401 105 5103	MT-GLAZE 47 JA 1/16W	R3556	401 105 0306	MT-GLAZE 10 JA 1/16W
R3374	401 105 5103	MT-GLAZE 47 JA 1/16W	R3557	401 105 0306	MT-GLAZE 10 JA 1/16W
R3376	401 105 5103	MT-GLAZE 47 JA 1/16W	R3558	401 105 0306	MT-GLAZE 10 JA 1/16W
R3377	401 105 5103	MT-GLAZE 47 JA 1/16W	R3559	401 105 0306	MT-GLAZE 10 JA 1/16W

## Electrical Parts List

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R356	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R424	401 105 0306	MT-GLAZE 10 JA 1/16W
R3561	401 105 4205	MT-GLAZE 33K JA 1/16W	R430	401 105 0405	MT-GLAZE 100 JA 1/16W
R3562	401 105 7404	MT-GLAZE 8.2K JA 1/16W	R431	401 105 0405	MT-GLAZE 100 JA 1/16W
R3563	401 105 0603	MT-GLAZE 10K JA 1/16W	R432	401 105 0405	MT-GLAZE 100 JA 1/16W
R3566	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R433	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R3567	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R434	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3572	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R435	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R3573	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R436	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R3576	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R437	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R3577	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R438	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R3578	401 105 0504	MT-GLAZE 1K JA 1/16W	R439	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R3581	401 105 2805	MT-GLAZE 2.2K JA 1/16W	R441	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R3582	401 105 0504	MT-GLAZE 1K JA 1/16W	R442	401 105 1105	MT-GLAZE 12K JA 1/16W
R3583	401 035 4108	MT-GLAZE 0.000 ZA 1/8W	R443	401 105 1105	MT-GLAZE 12K JA 1/16W
R359	401 105 0603	MT-GLAZE 10K JA 1/16W	R444	401 105 1105	MT-GLAZE 12K JA 1/16W
R3591	401 105 0306	MT-GLAZE 10 JA 1/16W	R445	401 105 0603	MT-GLAZE 10K JA 1/16W
R3592	401 105 0306	MT-GLAZE 10 JA 1/16W	R446	401 105 0603	MT-GLAZE 10K JA 1/16W
R3593	401 105 0306	MT-GLAZE 10 JA 1/16W	R447	401 105 0603	MT-GLAZE 10K JA 1/16W
R3594	401 105 0306	MT-GLAZE 10 JA 1/16W	R451	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3596	401 105 0306	MT-GLAZE 10 JA 1/16W	R452	401 105 0603	MT-GLAZE 10K JA 1/16W
R3597	401 105 0306	MT-GLAZE 10 JA 1/16W	R453	401 105 0603	MT-GLAZE 10K JA 1/16W
R3598	401 105 0306	MT-GLAZE 10 JA 1/16W	R454	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R3599	401 105 0306	MT-GLAZE 10 JA 1/16W	R461	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R361	401 105 0405	MT-GLAZE 100 JA 1/16W	R463	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R367	401 105 0603	MT-GLAZE 10K JA 1/16W	R466	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R371	401 105 0306	MT-GLAZE 10 JA 1/16W	R470	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R373	401 105 2805	MT-GLAZE 2.2K JA 1/16W	R471	401 105 0504	MT-GLAZE 1K JA 1/16W
R3801	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R473	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3806	401 105 0405	MT-GLAZE 100 JA 1/16W	R474	401 105 0603	MT-GLAZE 10K JA 1/16W
R3811	401 105 0603	MT-GLAZE 10K JA 1/16W	R475	401 105 0603	MT-GLAZE 10K JA 1/16W
R3812	401 105 0603	MT-GLAZE 10K JA 1/16W	R476	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3813	401 105 0603	MT-GLAZE 10K JA 1/16W	R477	401 105 4502	MT-GLAZE 390 JA 1/16W
R3814	401 105 0603	MT-GLAZE 10K JA 1/16W	R478	401 105 0504	MT-GLAZE 1K JA 1/16W
R3816	401 105 0603	MT-GLAZE 10K JA 1/16W	R479	401 105 0504	MT-GLAZE 1K JA 1/16W
R3841	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R481	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R3842	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R484	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3851	401 105 0603	MT-GLAZE 10K JA 1/16W	R486	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3852	401 105 4205	MT-GLAZE 33K JA 1/16W	R491	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3861	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R492	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3862	401 105 0603	MT-GLAZE 10K JA 1/16W	R493	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3863	401 105 0603	MT-GLAZE 10K JA 1/16W	R494	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3864	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5001	401 105 0702	MT-GLAZE 100K JA 1/16W
R3866	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5002	401 105 0702	MT-GLAZE 100K JA 1/16W
R3867	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5003	401 105 0702	MT-GLAZE 100K JA 1/16W
R3871	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5004	401 105 0702	MT-GLAZE 100K JA 1/16W
R3882	401 105 0405	MT-GLAZE 100 JA 1/16W	R5006	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R3883	401 105 0603	MT-GLAZE 10K JA 1/16W	R5007	401 105 1105	MT-GLAZE 12K JA 1/16W
R3884	401 105 0405	MT-GLAZE 100 JA 1/16W	R5008	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3886	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5009	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R3891	401 105 0405	MT-GLAZE 100 JA 1/16W	R501	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R401	401 105 0603	MT-GLAZE 10K JA 1/16W	R5010	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R402	401 105 0603	MT-GLAZE 10K JA 1/16W	R5011	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R403	401 217 3202	MT-GLAZE 51K FA 1/16W	R5013	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R404	401 212 1708	MT-GLAZE 24K FA 1/16W	R5014	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R405	401 105 0504	MT-GLAZE 1K JA 1/16W	R5015	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R406	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5016	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R407	401 105 0504	MT-GLAZE 1K JA 1/16W	R5017	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R409	401 105 8203	MT-GLAZE 68K JA 1/16W	R5018	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R411	401 105 4700	MT-GLAZE 39K JA 1/16W	R502	401 105 0504	MT-GLAZE 1K JA 1/16W
R412	401 105 8104	MT-GLAZE 56K JA 1/16W	R5021	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R413	401 105 4205	MT-GLAZE 33K JA 1/16W	R5022	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R414	401 105 4205	MT-GLAZE 33K JA 1/16W	R5023	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R415	401 105 4205	MT-GLAZE 33K JA 1/16W	R5024	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R419	401 105 0306	MT-GLAZE 10 JA 1/16W	R5026	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R421	401 105 0306	MT-GLAZE 10 JA 1/16W	R5027	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R422	401 105 0306	MT-GLAZE 10 JA 1/16W	R5028	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R423	401 105 0306	MT-GLAZE 10 JA 1/16W	R5029	401 105 2805	MT-GLAZE 2.2K JA 1/16W



## Electrical Parts List

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R503	401 105 2805	MT-GLAZE 2.2K JA 1/16W	R5209	401 105 0504	MT-GLAZE 1K JA 1/16W
R5031	401 105 5202	MT-GLAZE 470 JA 1/16W	R521	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R5036	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5211	401 262 8504	MT-GLAZE 62 FA 1/16W
R5037	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5212	401 105 0405	MT-GLAZE 100 JA 1/16W
R504	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5213	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5041	401 105 0603	MT-GLAZE 10K JA 1/16W	R5214	401 105 0504	MT-GLAZE 1K JA 1/16W
R5043	401 105 0603	MT-GLAZE 10K JA 1/16W	R5215	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5044	401 105 0603	MT-GLAZE 10K JA 1/16W	R5216	403 157 3106	CERAMIC 56P J 50V
R5046	401 105 5301	MT-GLAZE 4.7K JA 1/16W	R5217	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R5047	401 105 0603	MT-GLAZE 10K JA 1/16W	R5218	401 105 2904	MT-GLAZE 22K JA 1/16W
R5048	401 105 2904	MT-GLAZE 22K JA 1/16W	R5219	401 105 0603	MT-GLAZE 10K JA 1/16W
R505	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R522	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R506	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5221	401 262 8504	MT-GLAZE 62 FA 1/16W
R507	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5222	401 105 0405	MT-GLAZE 100 JA 1/16W
R508	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5223	401 105 0504	MT-GLAZE 1K JA 1/16W
R509	401 105 4007	MT-GLAZE 330 JA 1/16W	R5225	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R510	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5226	403 157 3106	CERAMIC 56P J 50V
R5103	401 105 1808	MT-GLAZE 18 JA 1/16W	R5227	401 262 8504	MT-GLAZE 62 FA 1/16W
R5104	401 105 1808	MT-GLAZE 18 JA 1/16W	R5228	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5106	401 105 1808	MT-GLAZE 18 JA 1/16W	R523	401 105 1600	MT-GLAZE 15K JA 1/16W
R5107	401 105 5806	MT-GLAZE 56 JA 1/16W	R5231	401 262 8504	MT-GLAZE 62 FA 1/16W
R5108	401 105 5806	MT-GLAZE 56 JA 1/16W	R5232	401 105 0405	MT-GLAZE 100 JA 1/16W
R5109	401 105 5806	MT-GLAZE 56 JA 1/16W	R5233	401 105 0504	MT-GLAZE 1K JA 1/16W
R511	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5235	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5110	401 105 0306	MT-GLAZE 10 JA 1/16W	R5236	403 157 3106	CERAMIC 56P J 50V
R5113	401 105 0603	MT-GLAZE 10K JA 1/16W	R524	401 105 1600	MT-GLAZE 15K JA 1/16W
R5114	401 105 0603	MT-GLAZE 10K JA 1/16W	R5245	401 105 6506	MT-GLAZE 680 JA 1/16W
R5115	401 105 0306	MT-GLAZE 10 JA 1/16W	R5247	401 105 6506	MT-GLAZE 680 JA 1/16W
R5116	401 105 5103	MT-GLAZE 47 JA 1/16W	R5249	401 105 6506	MT-GLAZE 680 JA 1/16W
R5117	401 105 5103	MT-GLAZE 47 JA 1/16W	R525	401 105 0603	MT-GLAZE 10K JA 1/16W
R5118	401 105 5103	MT-GLAZE 47 JA 1/16W	R5251	645 033 1725	INDUCTOR, 80 OHM
R5119	401 105 5103	MT-GLAZE 47 JA 1/16W	R5252	401 113 4907	MT-GLAZE 200 JA 1/16W
R512	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5253	401 105 0900	MT-GLAZE 120 JA 1/16W
R5121	401 105 5103	MT-GLAZE 47 JA 1/16W	R5255	401 105 4502	MT-GLAZE 390 JA 1/16W
R5122	401 105 5103	MT-GLAZE 47 JA 1/16W	R5256	401 105 0504	MT-GLAZE 1K JA 1/16W
R5123	401 105 5103	MT-GLAZE 47 JA 1/16W	R5257	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R5124	401 105 5103	MT-GLAZE 47 JA 1/16W	R5259	401 105 3901	MT-GLAZE 33 JA 1/16W
R5126	401 105 5103	MT-GLAZE 47 JA 1/16W	R5259R	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5127	401 105 5103	MT-GLAZE 47 JA 1/16W	R526	401 105 0504	MT-GLAZE 1K JA 1/16W
R5128	401 105 5103	MT-GLAZE 47 JA 1/16W	R5261	645 033 1725	INDUCTOR, 80 OHM
R5129	401 105 5103	MT-GLAZE 47 JA 1/16W	R5262	401 113 4907	MT-GLAZE 200 JA 1/16W
R5131	401 105 5103	MT-GLAZE 47 JA 1/16W	R5263	401 105 0900	MT-GLAZE 120 JA 1/16W
R5132	401 105 5103	MT-GLAZE 47 JA 1/16W	R5265	401 105 4502	MT-GLAZE 390 JA 1/16W
R5133	401 105 5103	MT-GLAZE 47 JA 1/16W	R5266	401 105 0504	MT-GLAZE 1K JA 1/16W
R5134	401 105 5103	MT-GLAZE 47 JA 1/16W	R5267	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R5136	401 105 5103	MT-GLAZE 47 JA 1/16W	R5269	401 105 3901	MT-GLAZE 33 JA 1/16W
R5137	401 105 5103	MT-GLAZE 47 JA 1/16W	R5269G	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5138	401 105 5103	MT-GLAZE 47 JA 1/16W	R527	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5139	401 105 5103	MT-GLAZE 47 JA 1/16W	R5270	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5141	401 105 5103	MT-GLAZE 47 JA 1/16W	R5271	645 033 1725	INDUCTOR, 80 OHM
R5142	401 037 5004	MT-GLAZE 0.000 ZA 1/10W	R5272	401 113 4907	MT-GLAZE 200 JA 1/16W
R5144	401 105 5103	MT-GLAZE 47 JA 1/16W	R5273	401 105 0900	MT-GLAZE 120 JA 1/16W
R5146	401 037 5004	MT-GLAZE 0.000 ZA 1/10W	R5275	401 105 4502	MT-GLAZE 390 JA 1/16W
R515	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5276	401 105 0504	MT-GLAZE 1K JA 1/16W
R516	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5277	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R517	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5279	401 105 3901	MT-GLAZE 33 JA 1/16W
R518	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5279B	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R519	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R528	401 105 0603	MT-GLAZE 10K JA 1/16W
R520	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5280	401 105 0306	MT-GLAZE 10 JA 1/16W
R5201	401 105 0504	MT-GLAZE 1K JA 1/16W	R5281	401 113 4402	MT-GLAZE 75 JA 1/16W
R5202	401 105 0306	MT-GLAZE 10 JA 1/16W	R5282	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5203	401 105 0306	MT-GLAZE 10 JA 1/16W	R5283V	401 105 0504	MT-GLAZE 1K JA 1/16W
R5204	401 105 0504	MT-GLAZE 1K JA 1/16W	R5283Y	401 105 0504	MT-GLAZE 1K JA 1/16W
R5205	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R5284	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5206	401 105 0504	MT-GLAZE 1K JA 1/16W	R5285	401 105 0900	MT-GLAZE 120 JA 1/16W
R5207	401 105 0306	MT-GLAZE 10 JA 1/16W	R5286	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5208	401 105 0306	MT-GLAZE 10 JA 1/16W	R5287	401 105 0504	MT-GLAZE 1K JA 1/16W



## Electrical Parts List

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R5288	401 113 4402	MT-GLAZE 75 JA 1/16W	R6123	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5289	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6126	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5291	401 113 4402	MT-GLAZE 75 JA 1/16W	R6128	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5296	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6131	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5298	401 105 0504	MT-GLAZE 1K JA 1/16W	R6135	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5299	401 262 8504	MT-GLAZE 62 FA 1/16W	R6136	401 105 5103	MT-GLAZE 47 JA 1/16W
R531	401 105 2003	MT-GLAZE 1.8K JA 1/16W	R6146	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R532	401 105 0504	MT-GLAZE 1K JA 1/16W	R6150	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R533	401 105 2805	MT-GLAZE 2.2K JA 1/16W	R6154	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R534	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6156	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R535	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6157	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R536	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6158	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R537	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6165	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R538	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6167	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R539	401 105 4007	MT-GLAZE 330 JA 1/16W	R6172	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R540	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6174	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R541	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6201	401 113 4402	MT-GLAZE 75 JA 1/16W
R542	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6202	401 113 4402	MT-GLAZE 75 JA 1/16W
R545	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6203	401 113 4402	MT-GLAZE 75 JA 1/16W
R546	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6204	401 113 4402	MT-GLAZE 75 JA 1/16W
R547	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6206	401 113 4402	MT-GLAZE 75 JA 1/16W
R548	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6207	401 113 4402	MT-GLAZE 75 JA 1/16W
R549	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6208	401 113 4402	MT-GLAZE 75 JA 1/16W
R550	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6209	401 113 4402	MT-GLAZE 75 JA 1/16W
R551	401 105 7404	MT-GLAZE 8.2K JA 1/16W	R6211	401 113 4402	MT-GLAZE 75 JA 1/16W
R552	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6212	401 113 4402	MT-GLAZE 75 JA 1/16W
R553	401 105 1600	MT-GLAZE 15K JA 1/16W	R6213	401 113 4402	MT-GLAZE 75 JA 1/16W
R554	401 105 1600	MT-GLAZE 15K JA 1/16W	R6214	401 113 4402	MT-GLAZE 75 JA 1/16W
R555	401 105 0603	MT-GLAZE 10K JA 1/16W	R6231	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R556	401 105 0504	MT-GLAZE 1K JA 1/16W	R6232	401 105 0603	MT-GLAZE 10K JA 1/16W
R557	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6236	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R558	401 105 0603	MT-GLAZE 10K JA 1/16W	R6237	401 105 0603	MT-GLAZE 10K JA 1/16W
R561	401 105 2003	MT-GLAZE 1.8K JA 1/16W	R6600	401 113 5508	MT-GLAZE 620 JA 1/16W
R562	401 105 0504	MT-GLAZE 1K JA 1/16W	R6602	401 105 0504	MT-GLAZE 1K JA 1/16W
R563	401 105 2805	MT-GLAZE 2.2K JA 1/16W	R6603	401 105 0306	MT-GLAZE 10 JA 1/16W
R564	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6604	401 105 0504	MT-GLAZE 1K JA 1/16W
R565	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6605	401 105 0504	MT-GLAZE 1K JA 1/16W
R566	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6606	401 105 0603	MT-GLAZE 10K JA 1/16W
R567	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6607	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R568	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6611	401 105 0603	MT-GLAZE 10K JA 1/16W
R569	401 105 4007	MT-GLAZE 330 JA 1/16W	R6612	401 105 0603	MT-GLAZE 10K JA 1/16W
R570	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6613	401 105 0306	MT-GLAZE 10 JA 1/16W
R571	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6615	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R572	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6617	401 105 0603	MT-GLAZE 10K JA 1/16W
R575	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6621	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R576	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6622	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R577	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6650	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R578	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6655	401 105 0603	MT-GLAZE 10K JA 1/16W
R579	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6656	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R580	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6658	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R581	401 105 7404	MT-GLAZE 8.2K JA 1/16W	R6902	401 105 0504	MT-GLAZE 1K JA 1/16W
R582	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6904	401 105 0504	MT-GLAZE 1K JA 1/16W
R583	401 105 1600	MT-GLAZE 15K JA 1/16W	R6908	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R584	401 105 1600	MT-GLAZE 15K JA 1/16W	R6909	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R585	401 105 0603	MT-GLAZE 10K JA 1/16W	R6916	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R586	401 105 0504	MT-GLAZE 1K JA 1/16W	R6917	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R587	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6918	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R588	401 105 0603	MT-GLAZE 10K JA 1/16W	R6921	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6101	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6922	401 105 0504	MT-GLAZE 1K JA 1/16W
R6103	401 105 5202	MT-GLAZE 470 JA 1/16W	R6924	401 105 0504	MT-GLAZE 1K JA 1/16W
R6104	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6927	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6106	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6928	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6117	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6942	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6118	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6946	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6119	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6947	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6120	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6948	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6122	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R6949	401 105 7909	MT-GLAZE 0.000 ZA 1/16W

## Electrical Parts List

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R6951	401 105 0603	MT-GLAZE 10K JA 1/16W	R867	401 105 0405	MT-GLAZE 100 JA 1/16W
R6952	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R868	401 105 0405	MT-GLAZE 100 JA 1/16W
R6955	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R869	401 105 0405	MT-GLAZE 100 JA 1/16W
R6956	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R871	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6958	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R872	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6961	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R873	401 105 6506	MT-GLAZE 680 JA 1/16W
R6963	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R874	401 105 4007	MT-GLAZE 330 JA 1/16W
R6964	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	<b>VARIABLE RESISTOR</b>		
R7221	401 105 0405	MT-GLAZE 100 JA 1/16W	VR2561	645 025 7414	VR, SEMI, 1K S
R7222	401 105 0603	MT-GLAZE 10K JA 1/16W	VR2571	645 025 7414	VR, SEMI, 1K S
R7224	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	VR2581	645 025 7414	VR, SEMI, 1K S
R7225	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	VR3561	645 025 7421	VR, SEMI, 10K S
R7226	401 105 0405	MT-GLAZE 100 JA 1/16W	VR521	645 025 7421	VR, SEMI, 10K S
R7228	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	VR551	645 025 7421	VR, SEMI, 10K S
R7241	401 230 2503	MT-GLAZE 1K FA 1/16W	VR581	645 025 7421	VR, SEMI, 10K S
R7242	401 235 4403	MT-GLAZE 560 FA 1/16W	VR6601	645 025 7414	VR, SEMI, 1K S
R7243	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	<b>COIL</b>		
R7244	401 218 4505	MT-GLAZE 2.2K FA 1/16W	L1961	645 020 1776	INDUCTOR, 3.3U M
R7246	401 105 1907	MT-GLAZE 180 JA 1/16W	L1971	645 020 1776	INDUCTOR, 3.3U M
R7247	401 218 4406	MT-GLAZE 1.2K FA 1/16W	L211	645 020 1776	INDUCTOR, 3.3U M
R7248TM	401 027 5502	CARBON 6.8K JA 1/6W	L212	645 020 1776	INDUCTOR, 3.3U M
R7251	401 230 2503	MT-GLAZE 1K FA 1/16W	L2202	645 020 1776	INDUCTOR, 3.3U M
R7252	401 262 8306	MT-GLAZE 470 FA 1/16W	L2204	645 020 1776	INDUCTOR, 3.3U M
R7253	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	L3301	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R7254	401 218 4505	MT-GLAZE 2.2K FA 1/16W	L3501	401 035 4306	MT-GLAZE 10 JA 1/8W
R7256	401 105 0306	MT-GLAZE 10 JA 1/16W	L3502	645 008 4782	INDUCTOR, 1.2U K
R7257	401 218 4406	MT-GLAZE 1.2K FA 1/16W	L3532	645 008 4782	INDUCTOR, 1.2U K
R7258TM	401 027 8602	CARBON 8.2K JA 1/6W	L3562	645 008 4782	INDUCTOR, 1.2U K
R7260	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	L3581	645 020 1776	INDUCTOR, 3.3U M
R7261	401 260 4706	MT-GLAZE 1.5K FA 1/16W	L431	645 026 1008	INDUCTOR, 3.3U M
R7262	401 217 3905	MT-GLAZE 3.3K FA 1/16W	L501	645 012 2255	INDUCTOR, 0.47U J
R7263	401 219 1107	MT-GLAZE 1.8K FA 1/16W	L502	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R7264	401 218 4505	MT-GLAZE 2.2K FA 1/16W	L503	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R7265	401 105 2706	MT-GLAZE 220 JA 1/16W	L504	401 035 4603	MT-GLAZE 100 JA 1/8W
R7266	401 203 9805	MT-GLAZE 2.7K FA 1/16W	L506	401 036 9904	MT-GLAZE 560 JA 1/8W
R7267	401 262 8306	MT-GLAZE 470 FA 1/16W	L507	645 012 2255	INDUCTOR, 0.47U J
R7268	401 218 4505	MT-GLAZE 2.2K FA 1/16W	L5102	645 020 1776	INDUCTOR, 3.3U M
R7269	401 218 4604	MT-GLAZE 5.6K FA 1/16W	L5103	645 020 1776	INDUCTOR, 3.3U M
R7281	401 105 2607	MT-GLAZE 22 JA 1/16W	L5201	645 020 1776	INDUCTOR, 3.3U M
R7283	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	L5251	645 002 5129	INDUCTOR, 0.47U M
R7286TM	401 024 7004	CARBON 1K JA 1/6W	L5252	645 002 5129	INDUCTOR, 0.47U M
R7288	401 105 2607	MT-GLAZE 22 JA 1/16W	L5281	645 020 1776	INDUCTOR, 3.3U M
R802	401 105 0603	MT-GLAZE 10K JA 1/16W	L531	645 012 2255	INDUCTOR, 0.47U J
R803	401 105 0603	MT-GLAZE 10K JA 1/16W	L532	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R806	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	L533	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R807	401 105 0603	MT-GLAZE 10K JA 1/16W	L534	401 035 4603	MT-GLAZE 100 JA 1/8W
R808	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	L536	401 036 9904	MT-GLAZE 560 JA 1/8W
R809	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	L537	645 012 2255	INDUCTOR, 0.47U J
R820	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	L561	645 012 2255	INDUCTOR, 0.47U J
R823	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	L562	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R824	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	L563	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R825	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	L564	401 035 4603	MT-GLAZE 100 JA 1/8W
R826	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	L566	401 036 9904	MT-GLAZE 560 JA 1/8W
R827	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	L567	645 012 2255	INDUCTOR, 0.47U J
R851	401 105 0603	MT-GLAZE 10K JA 1/16W	L7271	645 002 5129	INDUCTOR, 0.47U M
R852	401 105 0603	MT-GLAZE 10K JA 1/16W	L7272	645 002 5129	INDUCTOR, 0.47U M
R853	401 105 0405	MT-GLAZE 100 JA 1/16W	<b>DIODE</b>		
R854	401 105 0405	MT-GLAZE 100 JA 1/16W	D1831	407 149 0807	DIODE 1SS355-TE-17
R856	401 105 0405	MT-GLAZE 100 JA 1/16W	D1971	407 149 0807	DIODE 1SS355-TE-17
R857	401 105 0405	MT-GLAZE 100 JA 1/16W	D2631	407 149 0807	DIODE 1SS355-TE-17
R859	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	D2643	407 149 0807	DIODE 1SS355-TE-17
R861	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	D2851	407 187 8209	ZENER DIODE UDZ12B-TE-17
R862	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	D2852	407 187 8209	ZENER DIODE UDZ12B-TE-17
R863	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	D2853	407 187 8209	ZENER DIODE UDZ12B-TE-17
R864	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	D2854	407 187 8209	ZENER DIODE UDZ12B-TE-17
R865	401 105 0405	MT-GLAZE 100 JA 1/16W			
R866	401 105 0405	MT-GLAZE 100 JA 1/16W			

## Electrical Parts List

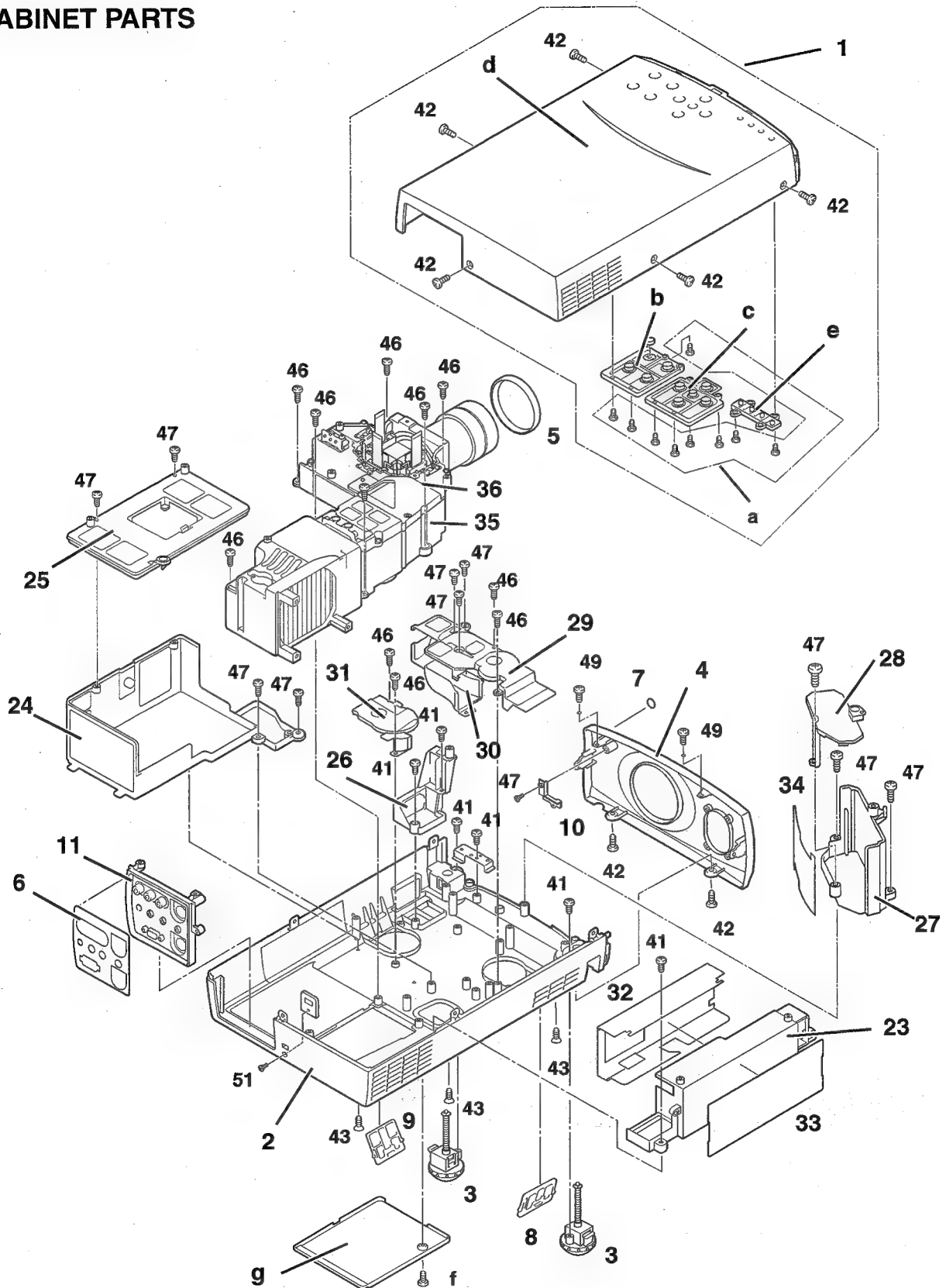
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
D2861	407 209 7500	LED SML-210YT T86 L	<b>ACCESSORIES</b>		
	407 209 7401	LED SML-210YT-K-T86			
D2863	407 203 7803	LED SML-210LT T86 M			
D2864	407 210 0200	LED SML-210PT T86 K			
	407 210 0101	LED SML-210PT-J-T86			
D2865	407 203 7803	LED SML-210LT T86 M			
D3301	407 149 0807	DIODE 1SS355-TE-17			
D3501	407 149 0807	DIODE 1SS355-TE-17			
D3851	407 179 1706	ZENER DIODE UDZ5.1B-TE-17			
D3882	407 149 0807	DIODE 1SS355-TE-17			
D451	407 149 0807	DIODE 1SS355-TE-17			
D471	407 149 0807	DIODE 1SS355-TE-17			
D5001	407 149 0807	DIODE 1SS355-TE-17			
D5002	407 149 0807	DIODE 1SS355-TE-17			
D5211	407 149 0807	DIODE 1SS355-TE-17			
D5221	407 149 0807	DIODE 1SS355-TE-17			
D5231	407 149 0807	DIODE 1SS355-TE-17			
D5281	407 149 0807	DIODE 1SS355-TE-17			
D5282	407 149 0807	DIODE 1SS355-TE-17			
D5283	407 149 0807	DIODE 1SS355-TE-17			
D6612	407 004 0706	DIODE DCB015-TB			
D6613	407 004 0706	DIODE DCB015-TB			
D6801	407 149 0807	DIODE 1SS355-TE-17			
D6802	407 149 0807	DIODE 1SS355-TE-17			
D6803	407 149 0807	DIODE 1SS355-TE-17			
D851	407 149 0807	DIODE 1SS355-TE-17			
<b>MISCELLANEOUS</b>			<b>OWNER'S MANUAL</b>		
SW6801	645 026 2791	SWITCH, PUSH 1P-1TX1	(English)		
SW6802	645 026 2791	SWITCH, PUSH 1P-1TX1	610 291 0056 OWNER'S MANUAL-M4GA-A		
SW6803	645 026 2791	SWITCH, PUSH 1P-1TX1	(Germany)		
SW6804	645 026 2791	SWITCH, PUSH 1P-1TX1	610 291 0094 OWNER'S MANUAL-M4GA-D-A		
SW6806	645 026 2791	SWITCH, PUSH 1P-1TX1	(French)		
SW6807	645 026 2791	SWITCH, PUSH 1P-1TX1	610 291 0100 OWNER'S MANUAL-M4GA-F-A		
SW6808	645 026 2791	SWITCH, PUSH 1P-1TX1	(Italian)		
SW6809	645 026 2791	SWITCH, PUSH 1P-1TX1	610 291 0117 OWNER'S MANUAL-M4GA-I-A		
SW6871	645 026 2791	SWITCH, PUSH 1P-1TX1	(Spanish)		
X1951	645 037 9352	OSC, CRYSTAL 24.000MHZ	610 291 0124 OWNER'S MANUAL-M4GA-E-A		
X1961	645 036 3788	OSC, CRISTAL, 16.000MHZ	<b>△ AC CORD</b>		
X2881	645 025 4468	OSC, CRYSTAL 3.579545MHZ	(For USA, Canada)		
X3801	645 021 1218	OSC, CERAMIC 8.00MHZ	645 002 9189 CORD, POWER-3.0MK		
	645 037 5187	OSC, CERAMIC 8.00MHZ	(For Europe, Asia, Africa)		
X3841	645 021 1218	OSC, CERAMIC 8.00MHZ	645 002 9196 CORD, POWER-3.0MK		
	645 037 5187	OSC, CERAMIC 8.00MHZ			
X3861	645 024 8566	OSC, CERAMIC 6.00MHZ			
	645 037 5217	OSC, CERAMIC 6.00MHZ			
X5101	645 037 4623	OSC, CRYSTAL 24.576MHZ			
<b>610 287 5850 ASSY,PWB,TEMP MK6A</b>					
<b>1AA0B10C2930B</b>					
<b>INTEGRATED CIRCUIT</b>					
IC1832	409 481 8602	IC LM76CHMX-5			
<b>CAPACITOR</b>					
C1833	403 205 7803	TA-SOLID 2.2U M 16V			
C1871TM	403 011 3402	CERAMIC 120P J 50V			
C1872TM	403 155 1609	CERAMIC 33P J 50V			
<b>RESISTOR</b>					
R1871	401 105 0306	MT-GLAZE 10 JA 1/16W			
R1872	401 105 0306	MT-GLAZE 10 JA 1/16W			
R1873	401 105 0603	MT-GLAZE 10K JA 1/16W			
R1874	401 105 7909	MT-GLAZE 0.000 ZA 1/16W			

# ■ Mechanical Parts List

M4G-3000

Note: Parts order must contain Chassis No., Part No., and Descriptions.

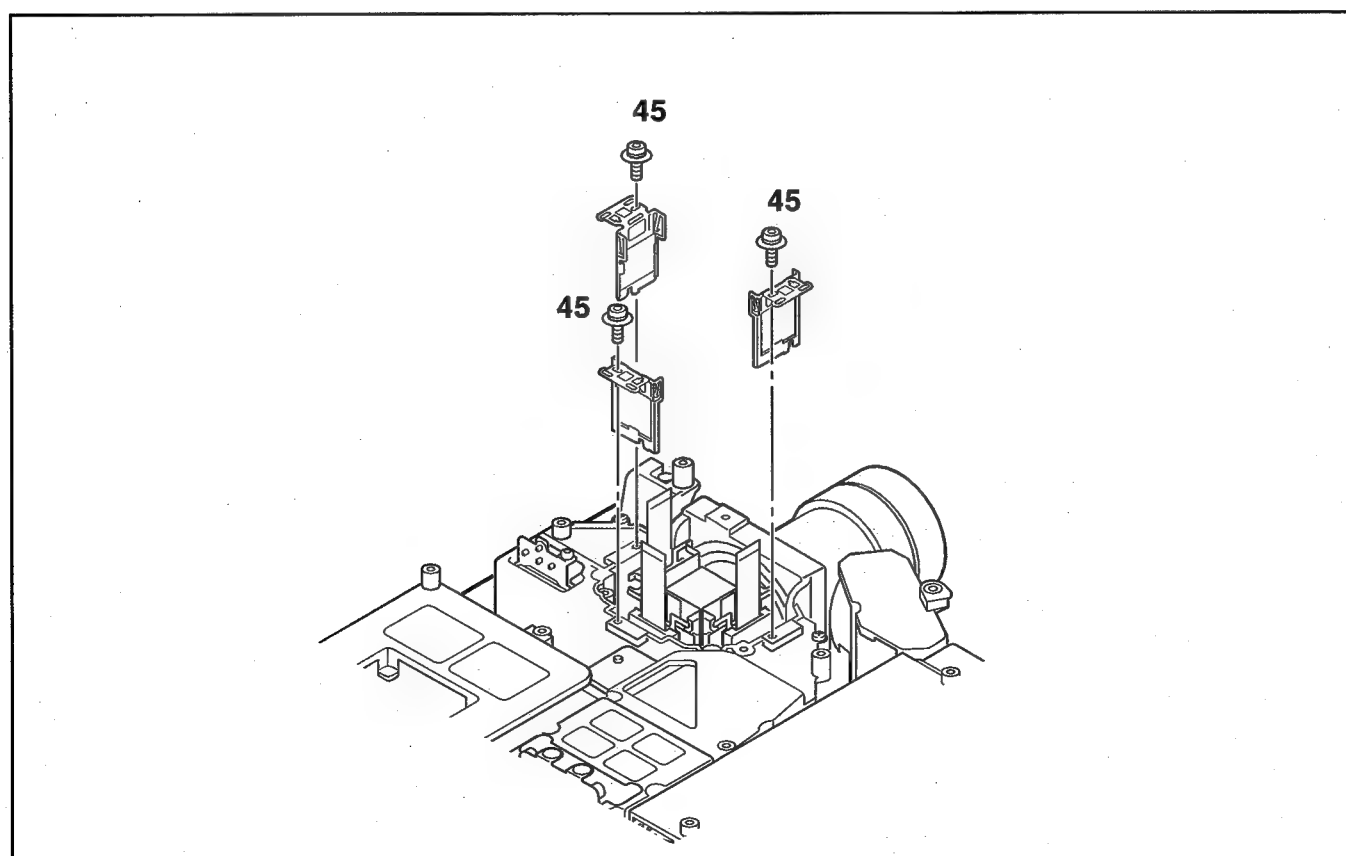
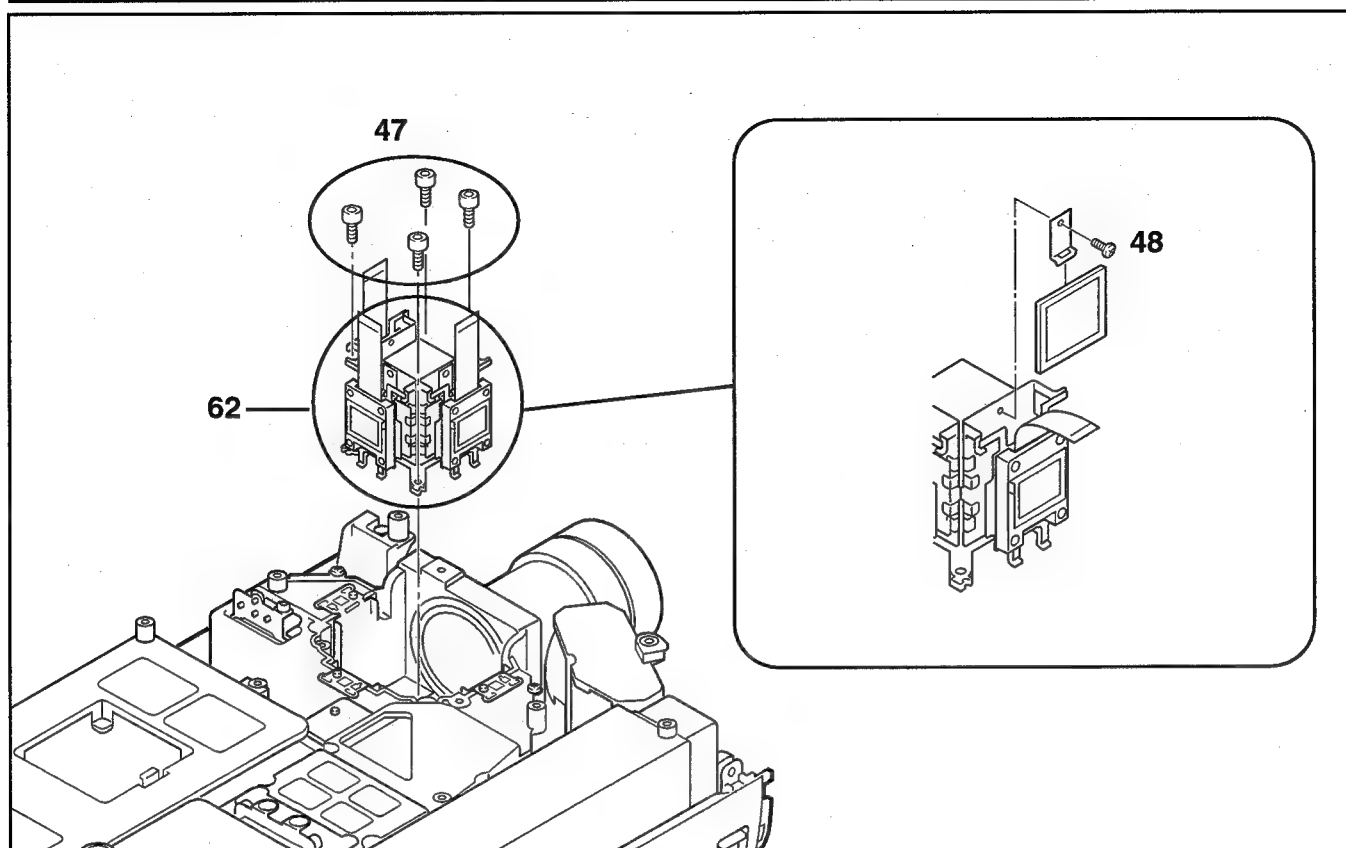
## ● CABINET PARTS



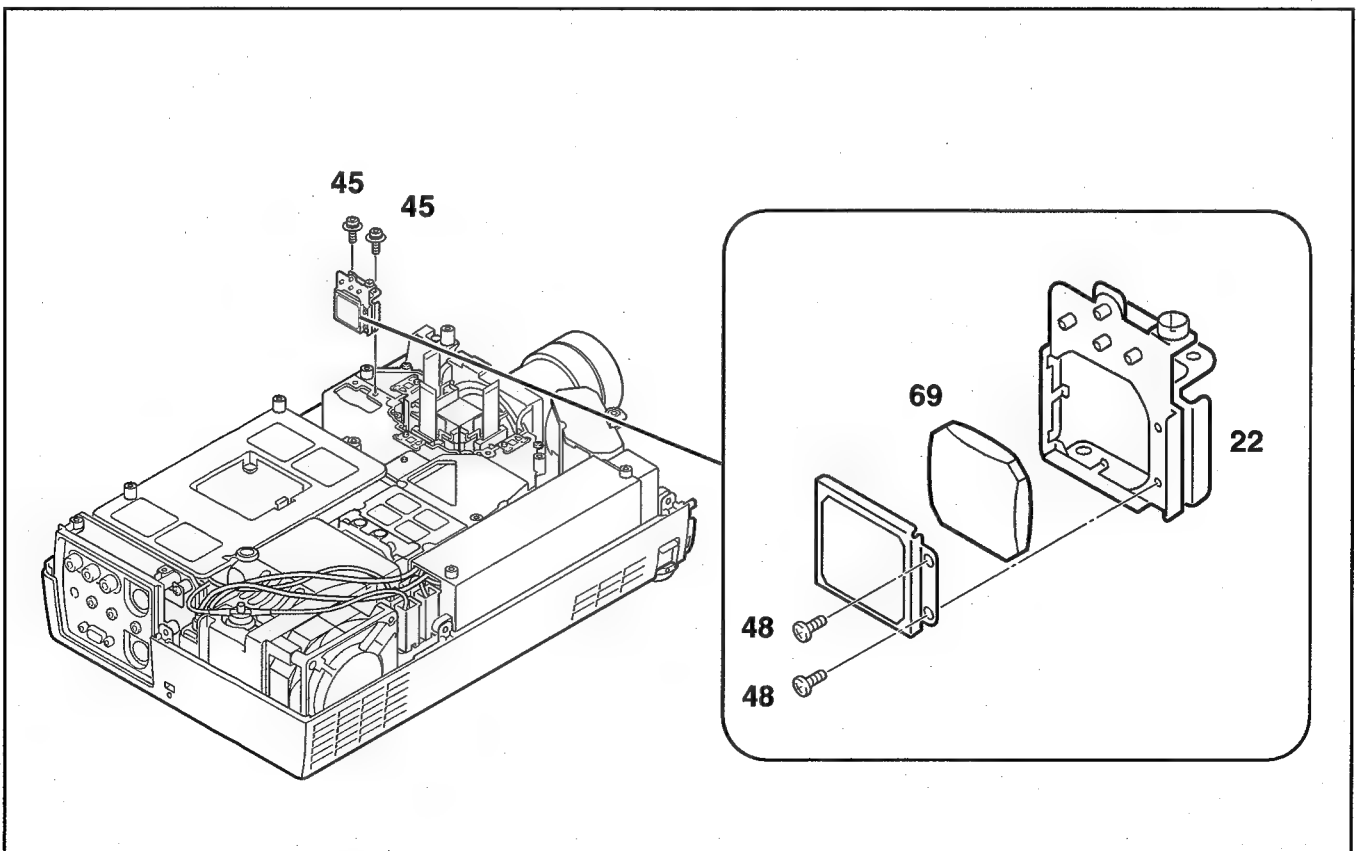
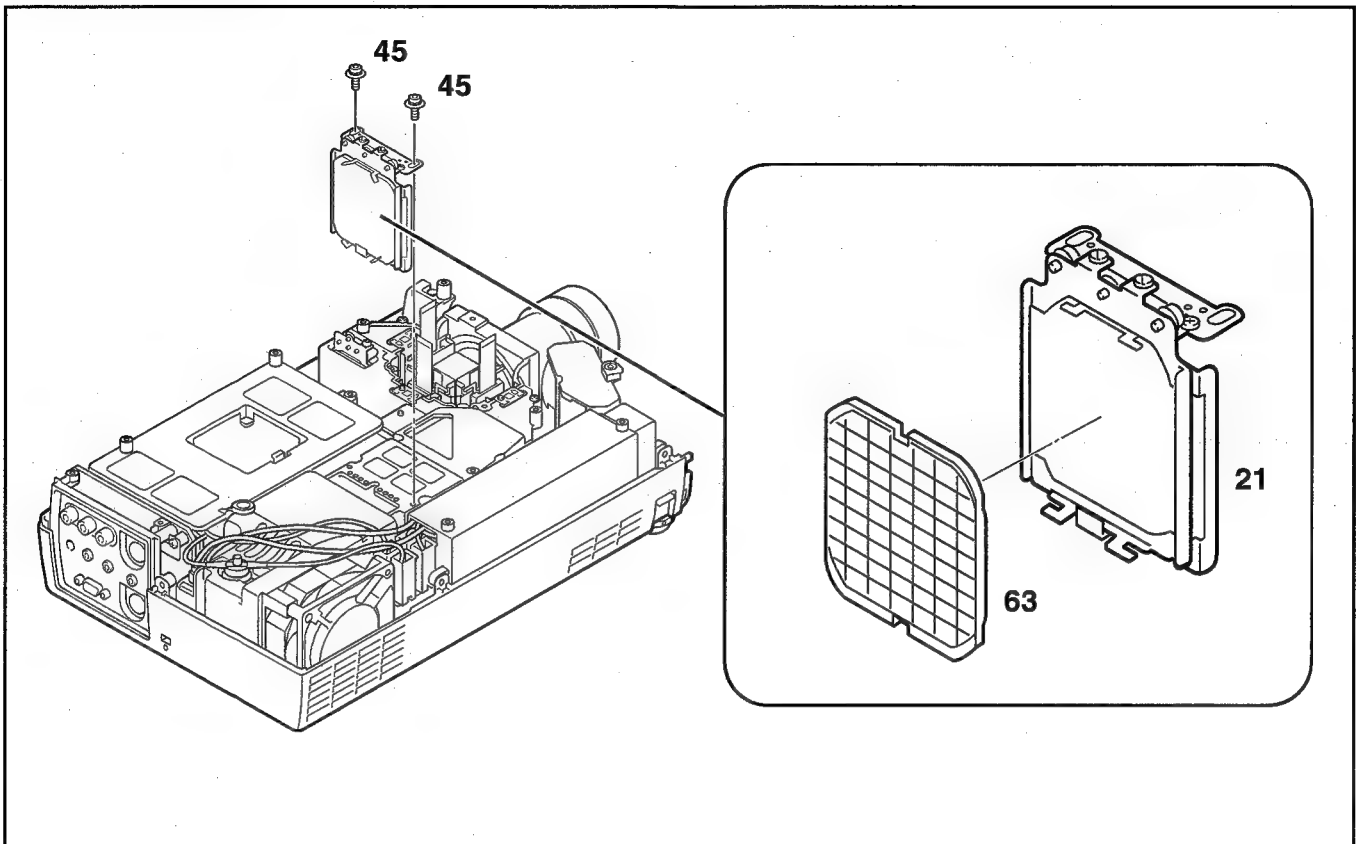
## Mechanical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
<b>CABINET PARTS</b>			31	610 286 8364	MOUNTING DUCT TOP BLUE-MK
1	610 288 4548	COMPL,CABINET TOP-M4GA (Including Key No. a to e)	32	610 286 9804	SPACER SHEET*LP R-MK6A
a	411 025 3806	SCR S-TPG BIN 2X4	33	610 286 9811	SPACER SHEET*LP L-MK6A
b	610 285 8730	ASSY,BUTTON P-MK6A	34	610 287 7793	SPACER SHEET*L.F-MK6A
c	610 288 4722	BUTTON-M4GA	35	610 285 1373	OPTICAL BASE BTM-MK6A
d	610 288 4746	CABINET TOP-M4GA	36	610 285 1380	OPTICAL BASE TOP-MK6A
e	610 285 7580	DEC INLAY-MK6A	<b>SCREWS-CABINET-</b>		
2	610 288 4708	COMPL,CABINET BTM-M4GA (Including Key No. f, g)	41	411 025 6500	SCR S-TPG BIN 3X8
f	411 031 9304	SCR BIN 3X8	42	411 031 9304	SCR BIN 3X8
g	610 288 4760	COVER,LP-M4GA	43	411 077 9009	SCR TPG FLT 3X8
3	610 288 4715	ASSY,STAND LEG-M4GA	<b>SCREWS-CHASSIS-</b>		
4	610 288 4739	CABINET FRONT-M4GA	44	412 058 5409	SPECIAL SCREW
5	610 285 7559	CAP LENS-MK6A	45	411 181 4303	BOLT HEX-SCT+SW+W 2.5X5
6	610 288 4807	DEC AV SHEET-M4GA	46	411 025 5206	SCR S-TPG BIN 3X10
7	610 286 6391	DEC SHEET-MK6A	47	411 026 7704	SCR S-TPG PAN 3X6
8	610 285 7634	FILTER BASE L-MK6A	48	411 030 5703	SCR BIN 2X4
9	610 285 7641	FILTER BASE R-MK6A	49	411 001 8702	SCR BIN 3X6
10	610 290 4628	HOLDER SENSOR-MK6A	50	411 001 8900	SCR BIN 3X8
11	610 288 4814	PANEL AV-M4GA	51	411 033 3003	SCR FLT 2X4
<b>CHASSIS PARTS</b>					
21	610 285 8457	COMPL,MOUNTING INT-MK6A			
22	610 285 8464	COMPL,MOUNTING LENS-MK6A			
23	610 285 6736	HOLDER LP PWB-MK6A			
24	610 285 6743	HOLDER POWER PWB B-MK6A			
25	610 285 6750	HOLDER POWER PWB T-MK6A			
26	610 285 6767	HOLDER AC-MK6A			
27	610 285 6781	HOLDER L.F PWB B-MK6A			
28	610 286 9378	HOLDER L.F PWB T-MK6A			
29	610 285 8525	MOUNTING DUCT TOP-MK6A			
30	610 290 2082	MOUNTING DUCT BTM-M4GA			

## Mechanical Parts List



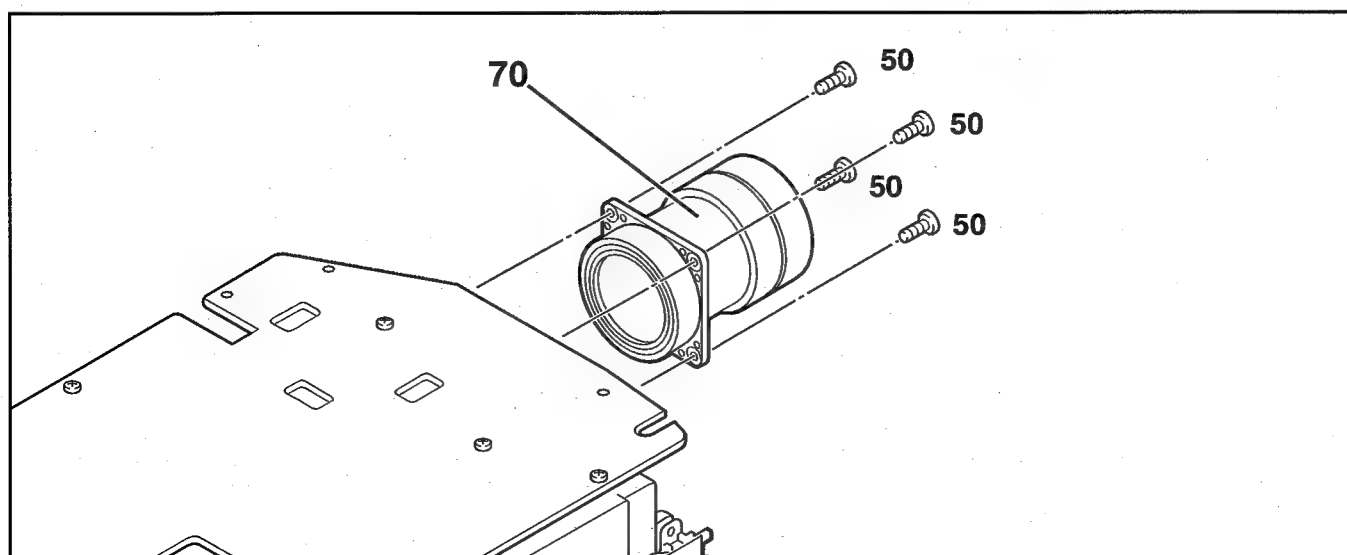
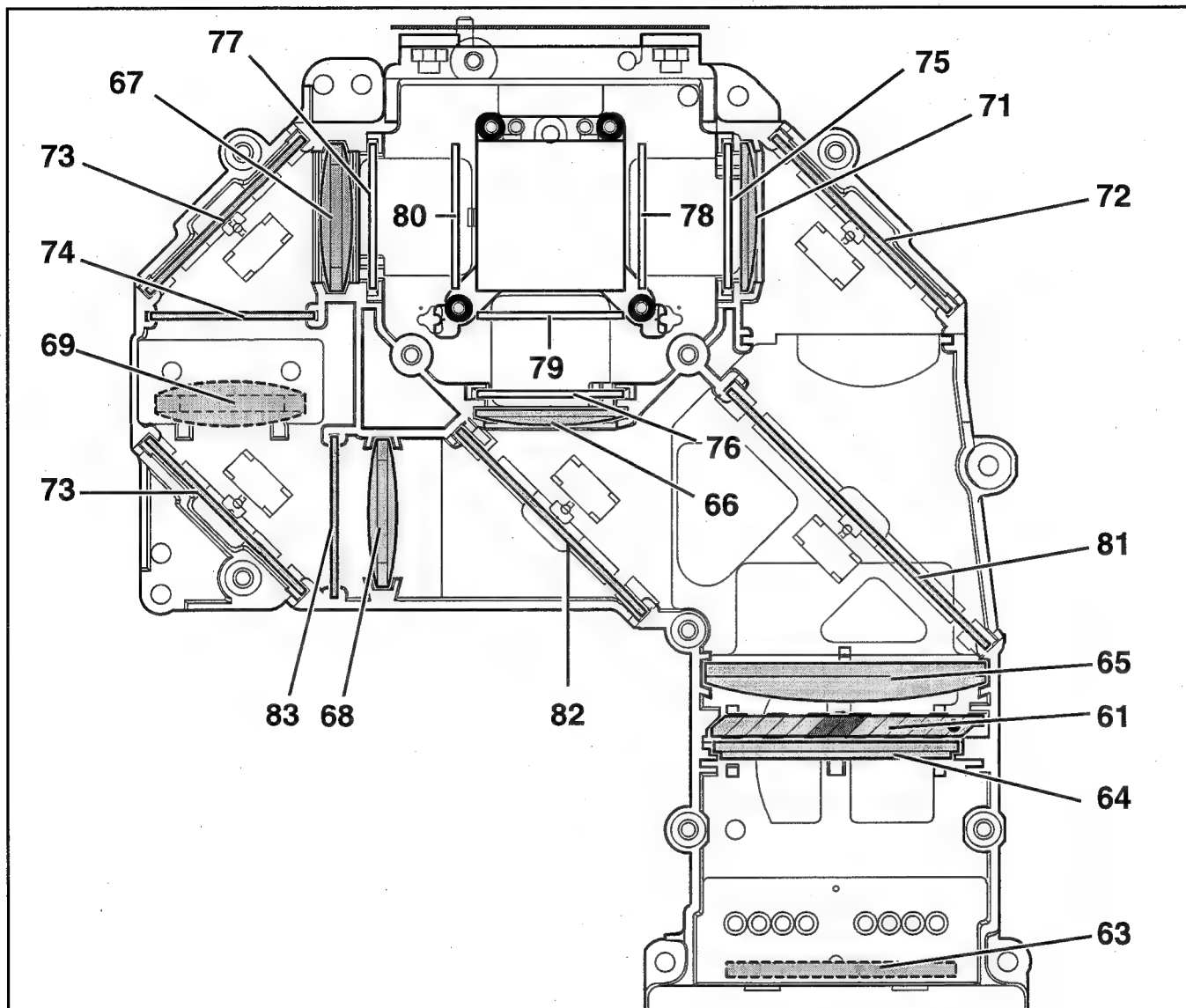
Mechanical Parts List



# ■ Optical Parts List

M4G-3000

Note: Parts order must contain Chassis No., Part No., and Descriptions.





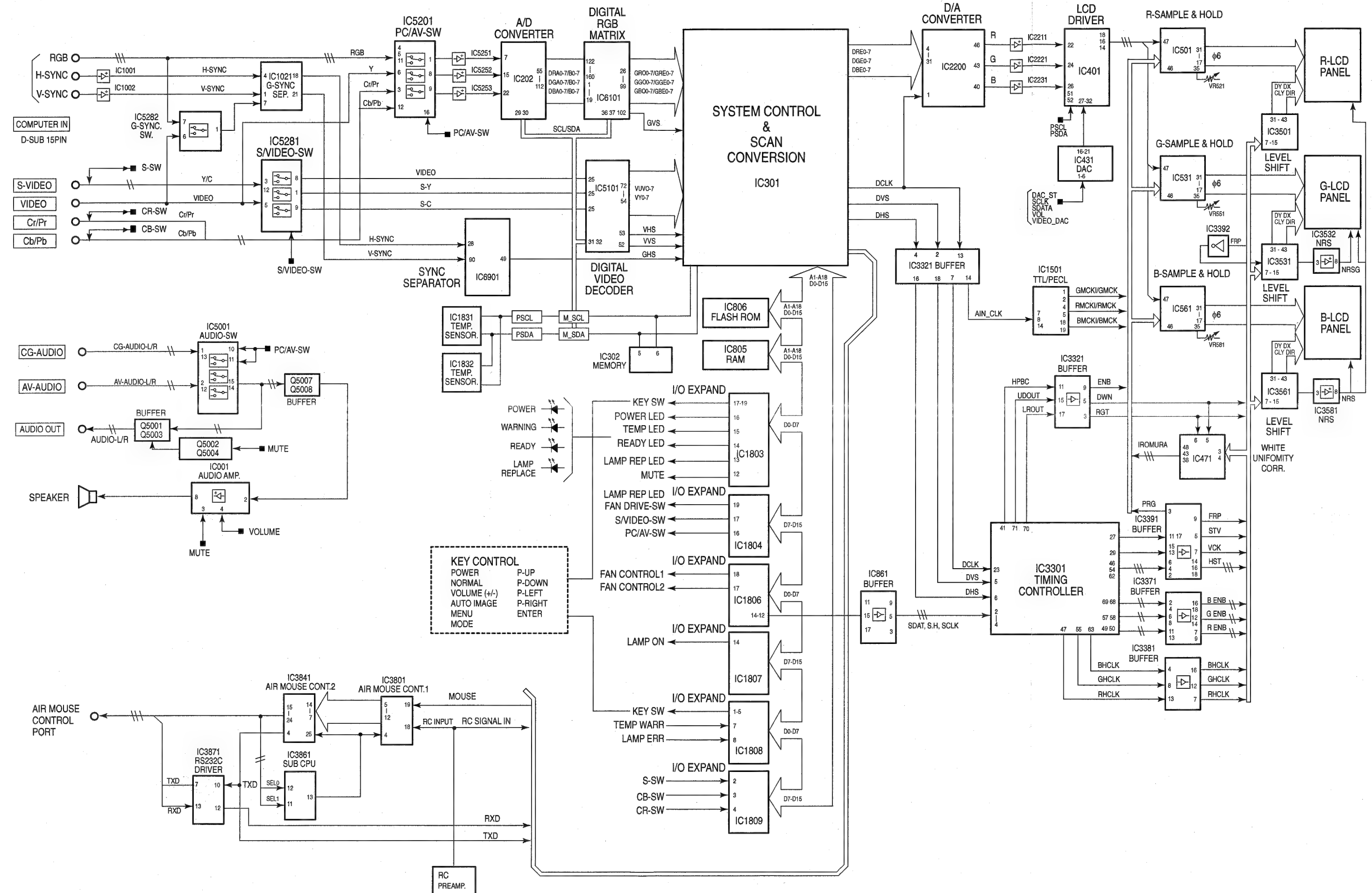
## Optical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
<b>OPTICAL PARTS</b>					
61	645 041 5104	ASSY, PRISM(PBS)	74	645 041 5081	OPTICAL FILTER(UV CUT)
or	645 044 2452	ASSY, PRISM(PBS)	75	645 045 2338	POLARIZED GLASS(OUT/R) SA
62	610 289 3816	ASSY, LCD PNL/PRISM-MK6A	76	645 045 2345	POLARIZED GLASS(OUT/G) SA
	(Including R,G,B LCD Panels and Key No. 48, 78, 79, 80)		77	645 045 2352	POLARIZED GLASS(OUT/B) SA
63	645 041 5005	LENS, INTEGRATOR (IN)	78	645 044 1059	POLARIZED GLASS(IN/R) SA
64	645 041 5012	LENS, INTEGRATOR (OUT)	79	645 044 1066	POLARIZED GLASS(IN/G) SA
65	645 041 5029	LENS, CONDENSER (OUT)	80	645 044 1073	POLARIZED GLASS(IN/B) SA
66	645 041 5036	LENS, CONDENSER	81	645 044 1004	DICHROIC MIRROR (R)
67	645 041 5043	LENS, CONDENSER (B)	82	645 044 1011	DICHROIC MIRROR (G)
68	645 041 5050	LENS, RELAY (IN)	83	645 044 0526	OPTICAL FILTER (RG)
69	645 041 5067	LENS, RELAY (OUT)			
70	645 044 3015	LENS, PROJECTION			
71	645 044 0564	LENS, CONDENSER (RV)			
72	645 041 5494	MIRROR (R)			
73	645 041 5500	MIRROR (B)			

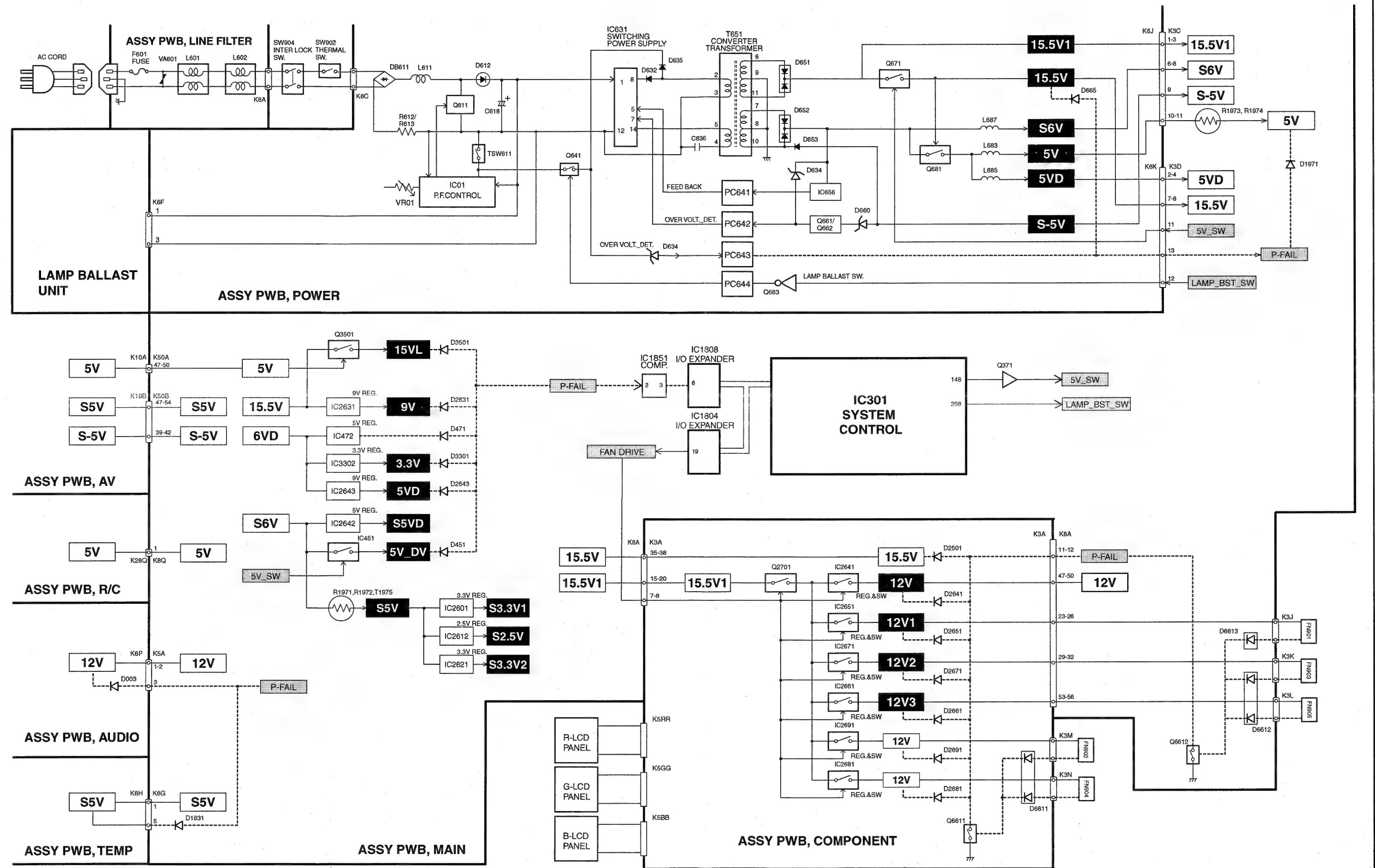
**CAUTION:**

Part must be placed in specified direction when replacing the optical parts. Please see "Optical Parts Disassemblies" for further instructions.

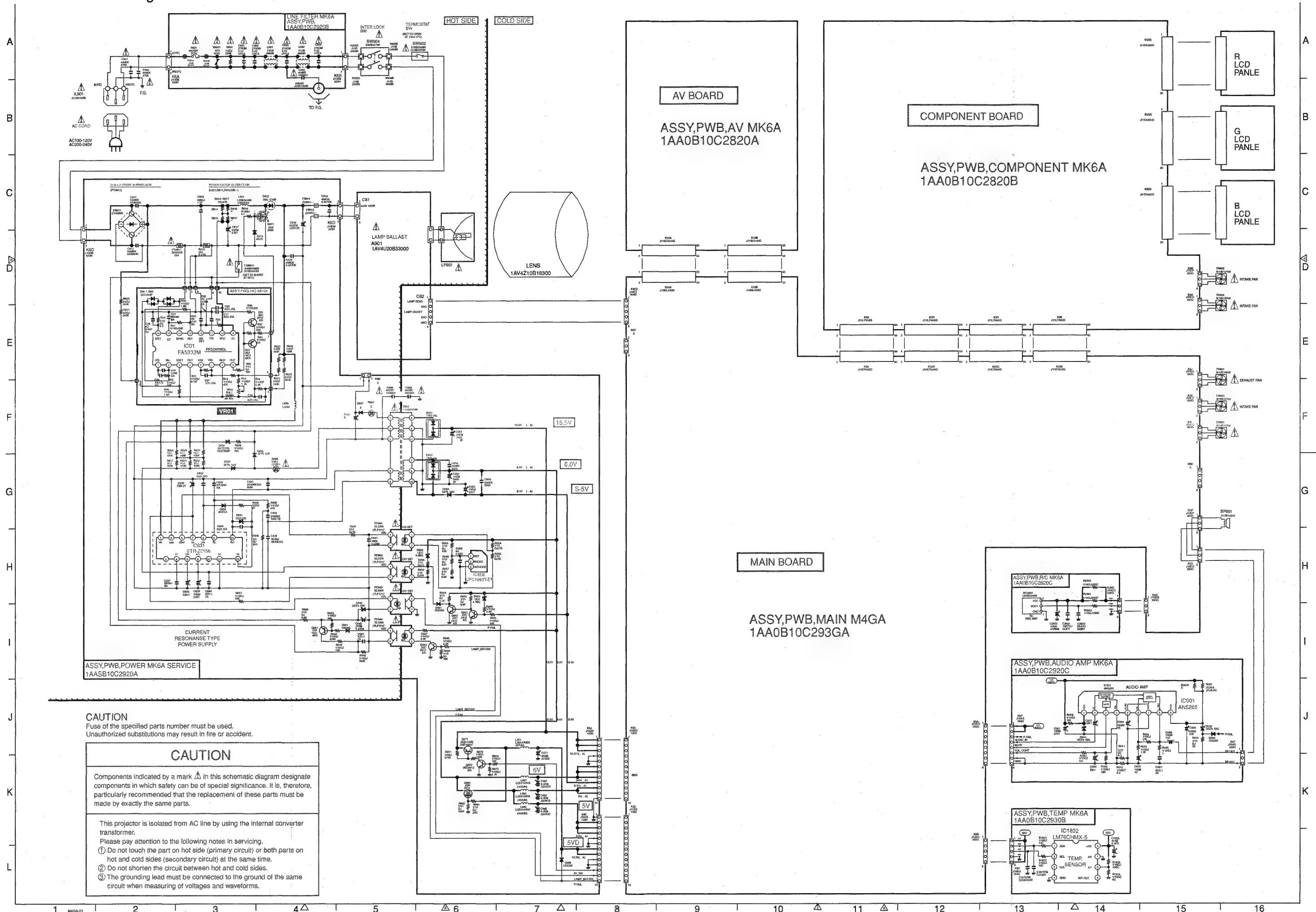
# ■ Circuit Block Diagram (PLV-30)



# ■ Power Supply Lines (PLV-30)



# ■ Schematic Diagrams PLV-30

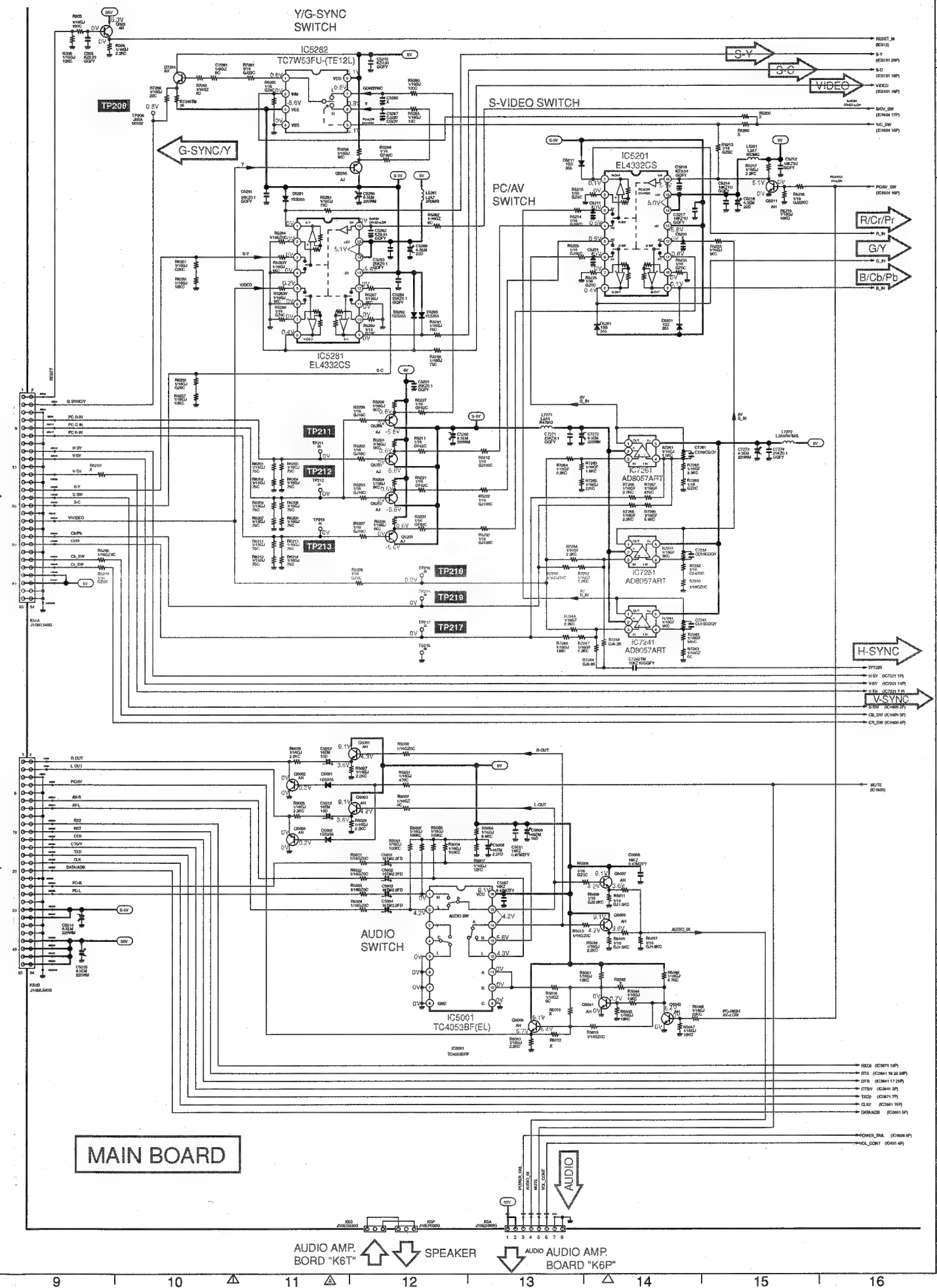
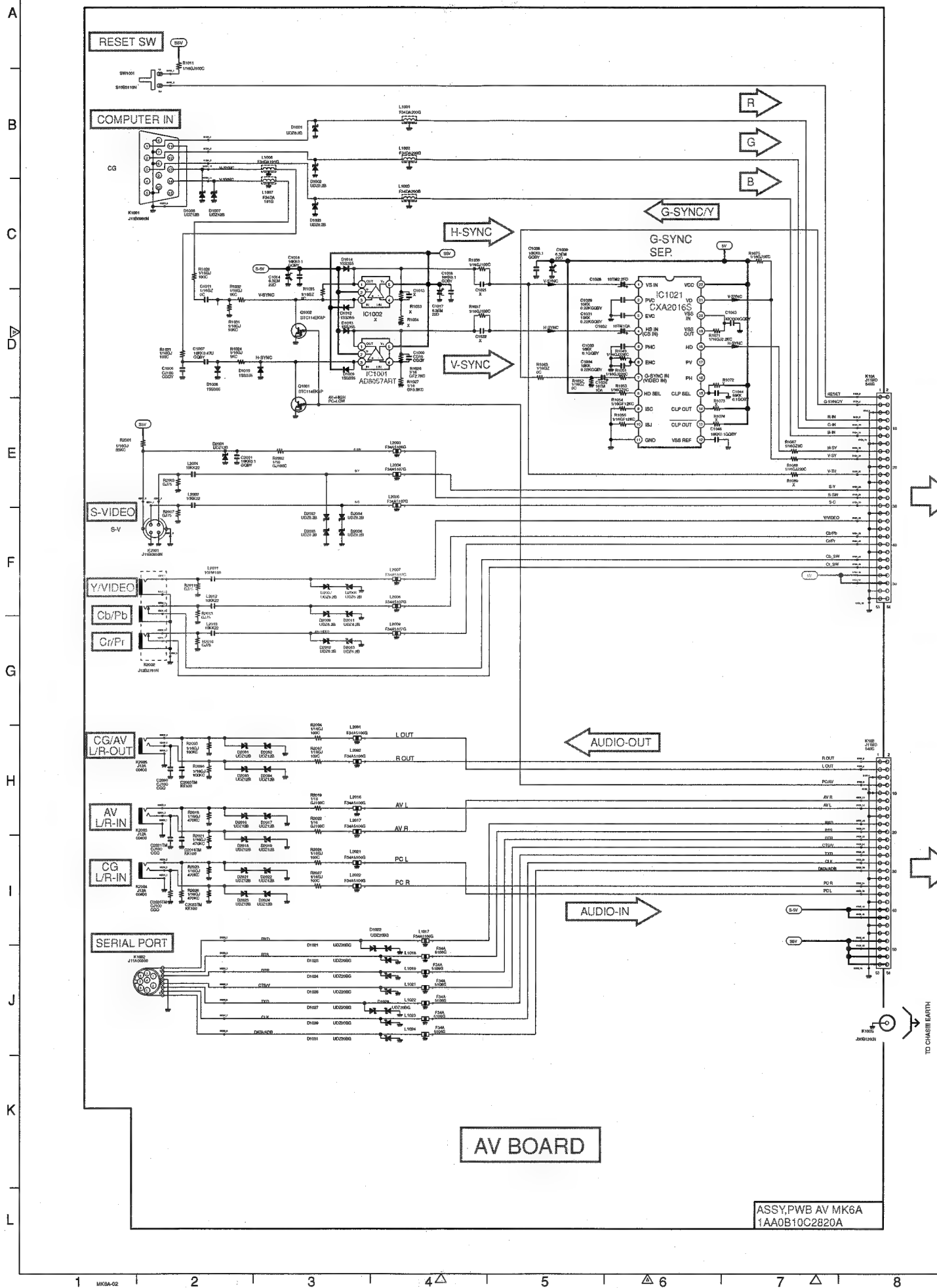


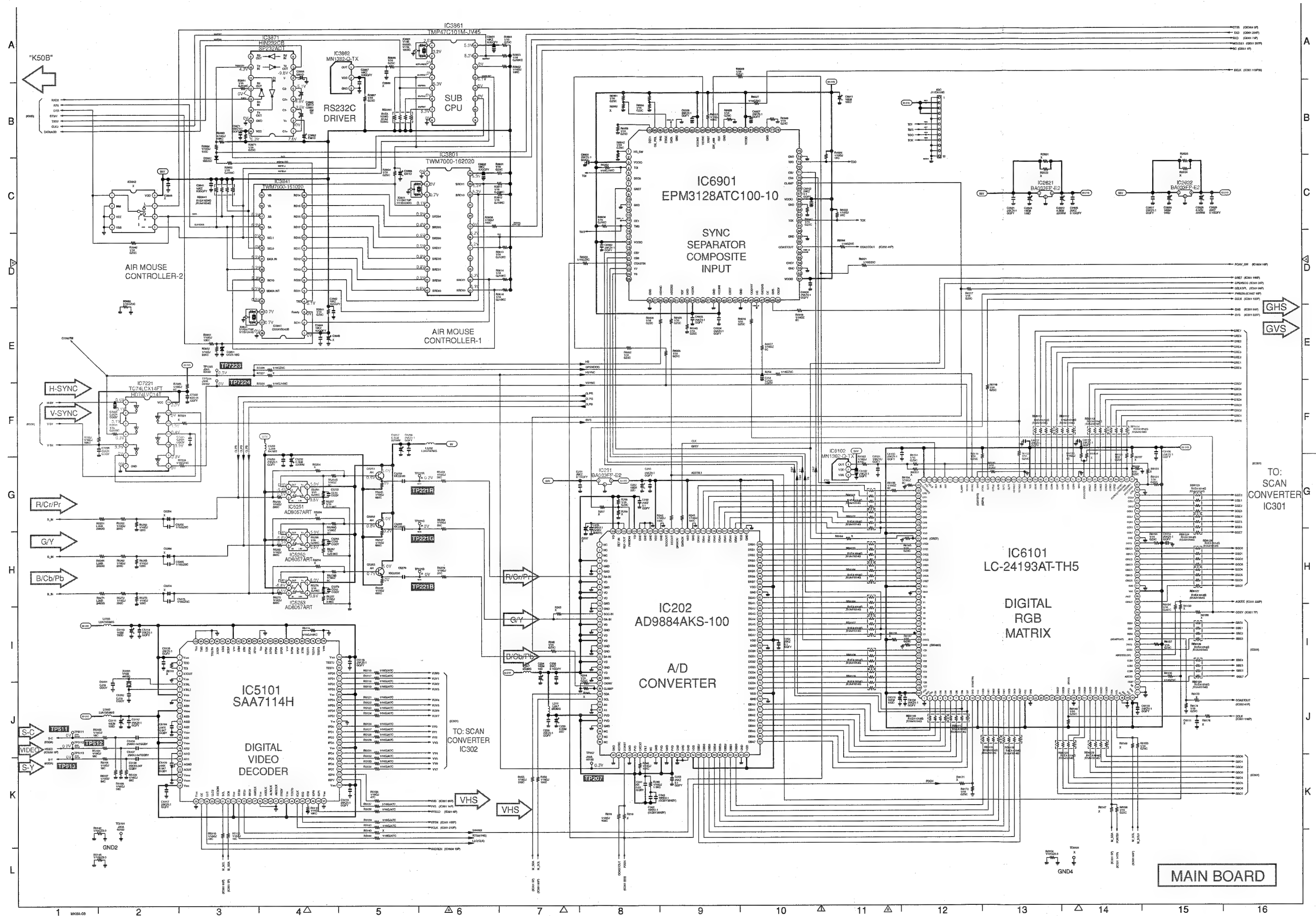
**CAUTION**  
Fuse of the specified parts number must be used.  
Unauthorized substitutions may result in fire or accident.

## CAUTION

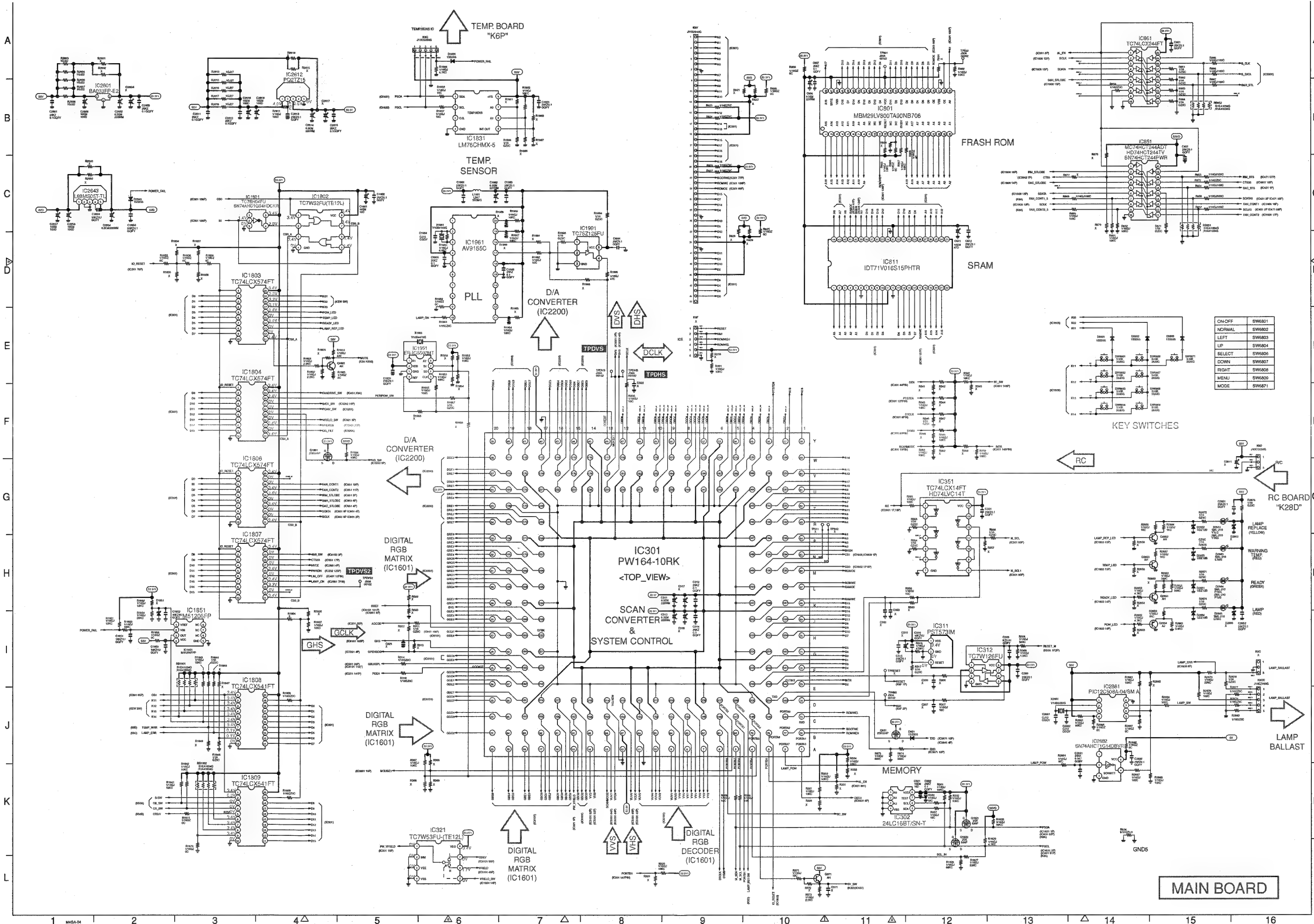
Components indicated by a mark  $\Delta$  in this schematic diagram designate components in which safety can be of special significance. It is, therefore, particularly recommended that the replacement of these parts must be made by exactly the same parts.

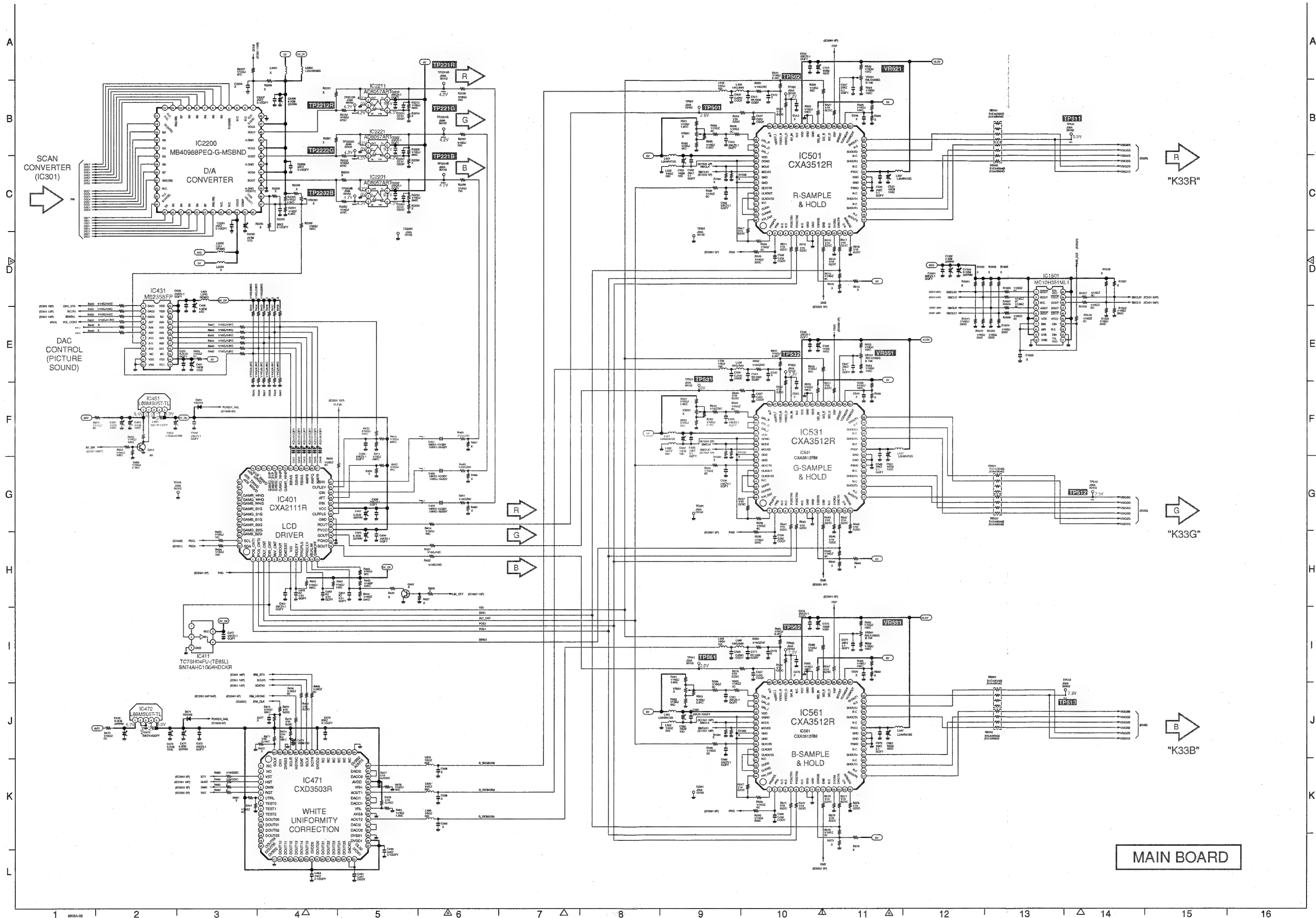
- This projector is isolated from AC line by using the internal converter transformer.
- Please pay attention to the following notes in servicing.
- Do not touch the part on hot side (primary circuit) or both parts on hot and cold sides (secondary circuit) at the same time.
  - Do not shorten the circuit between hot and cold sides.
  - The grounding lead must be connected to the ground of the same circuit when measuring of voltages and waveforms.







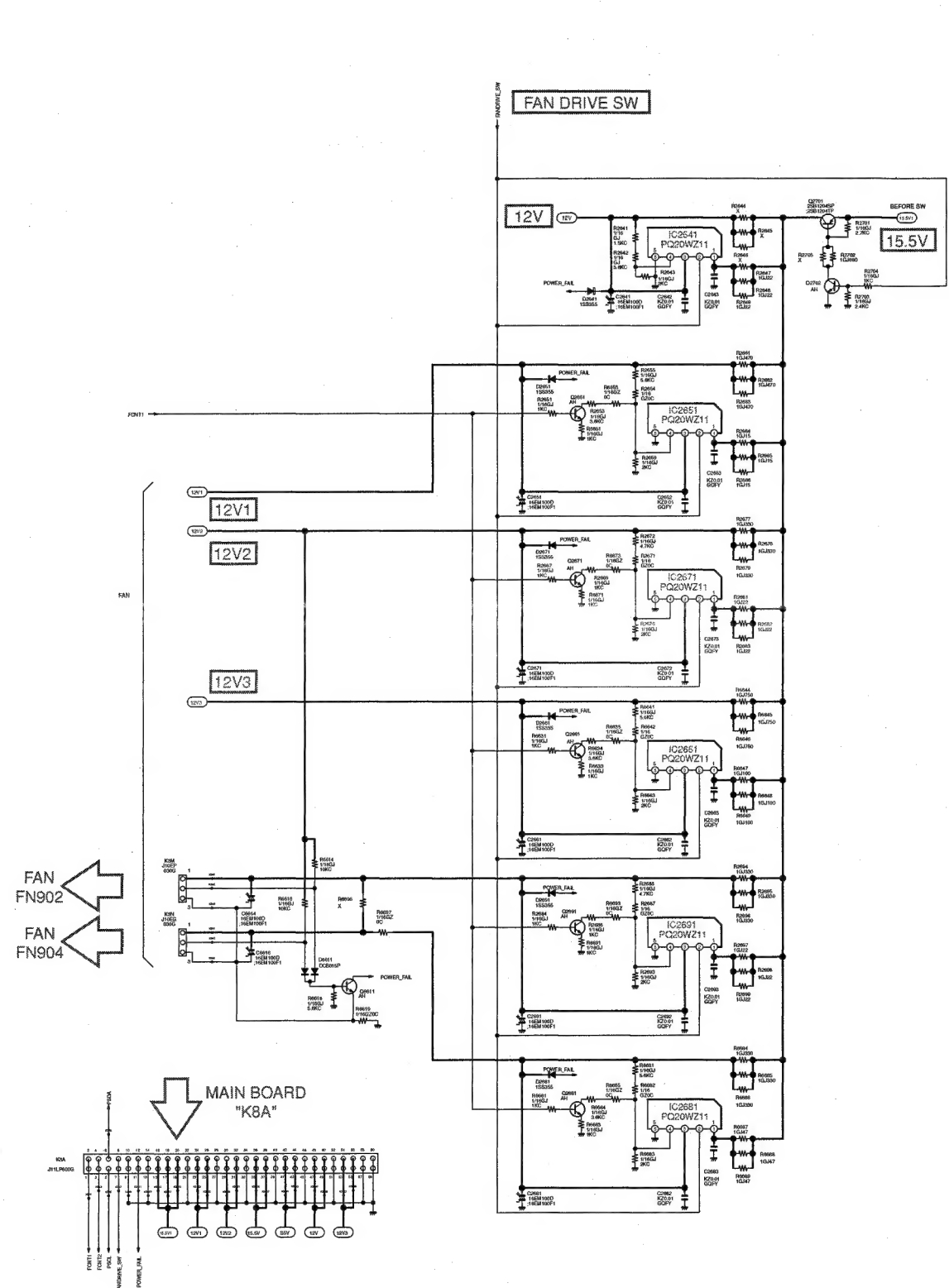








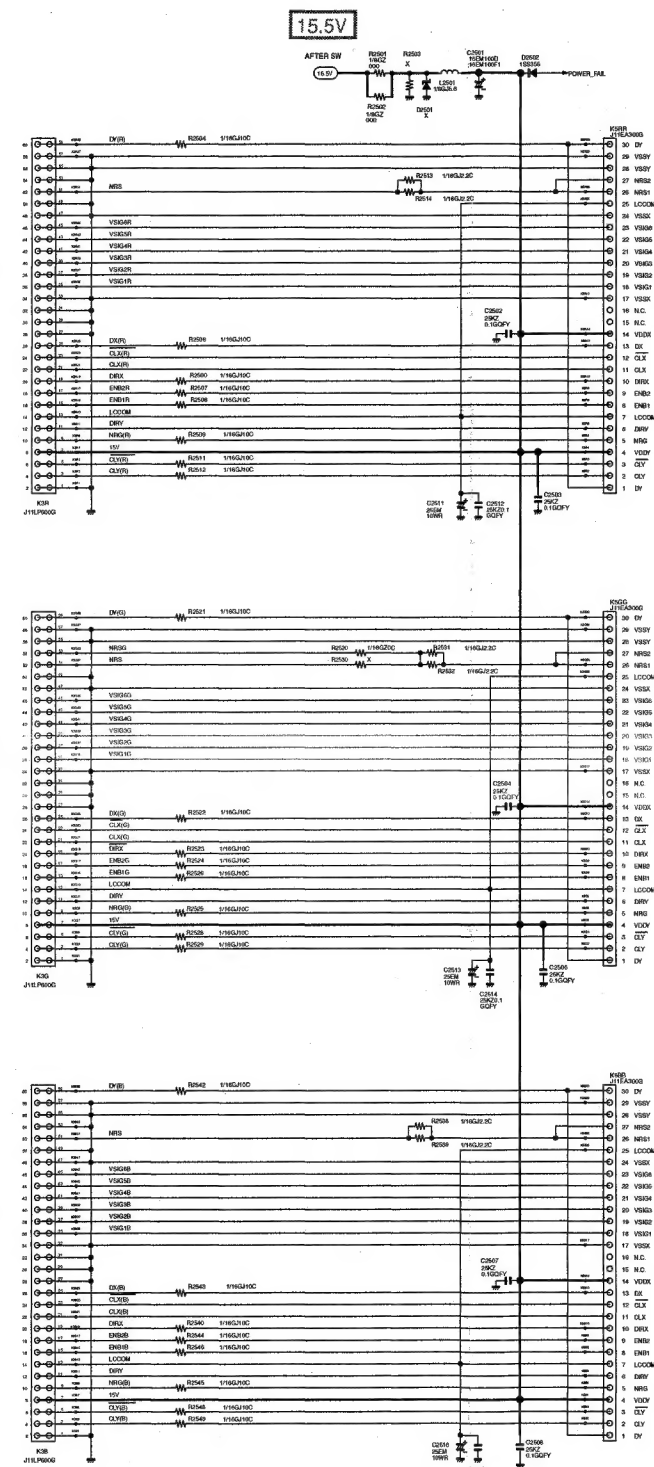
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L



MAIN BOARD "K33R"

MAIN BOARD "K33G"

MAIN BOARD "K33B"



R-LCD PANEL

G-LCD PANEL

B-LCD PANEL

COMPONENT BOARD

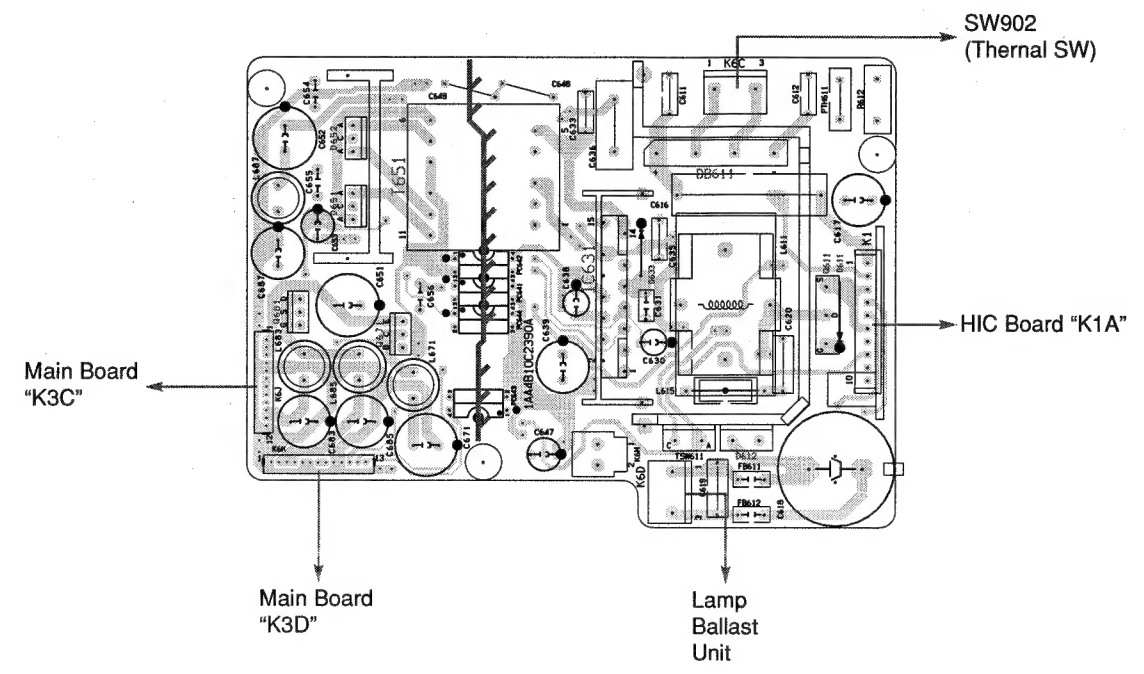
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K

# ■ Printed Wiring Board Diagrams (PLV-30)

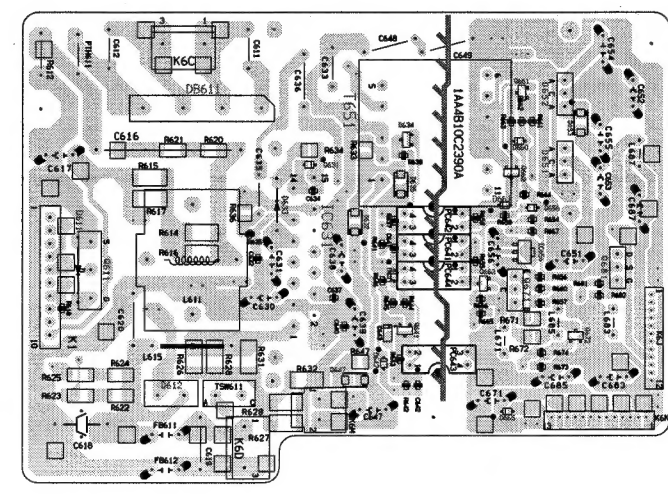
## ⚠ CAUTION

This projector is isolated from AC line by using the internal converter transformer.  
Please pay attention to the following notes in servicing  
1. Do not touch the part on hot side (primary circuit) or both parts on hot and cold sides (secondary circuit) at the same time.  
2. Do not shorten the circuit between hot and cold sides.  
3. The grounding lead must be connected to the ground of the same circuit when measuring of volt-ages and waveforms.

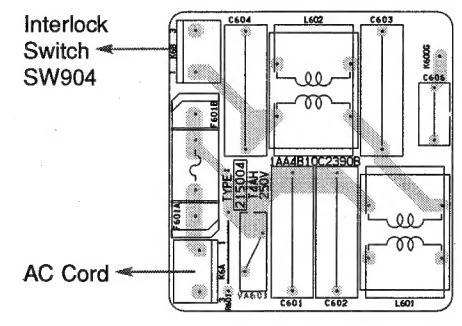
Power Board (SIDE:A)



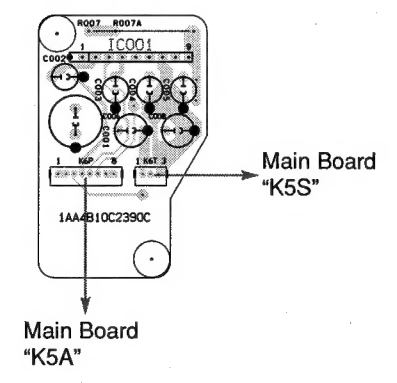
Power Board (SIDE:B)



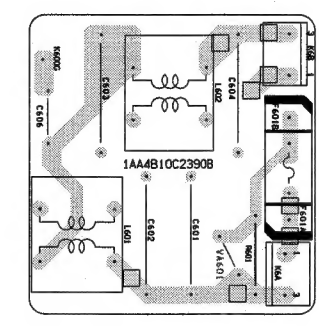
Line Filter Board (SIDE:A)



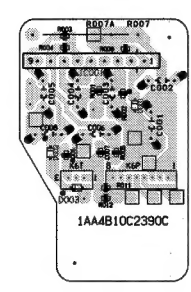
Audio Amp Board (SIDE:A)



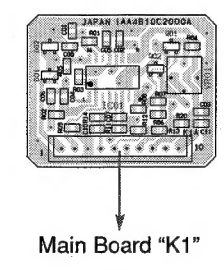
Line Filter Board (SIDE:B)



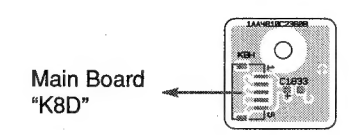
Audio Amp Board (SIDE:B)



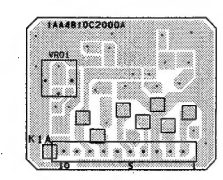
HIC Board (SIDE:A)



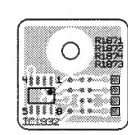
Temp Board (SIDE:A)



HIC Board (SIDE:B)



Temp Board (SIDE:B)

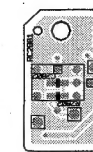
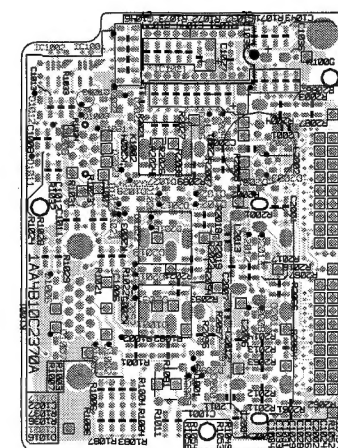
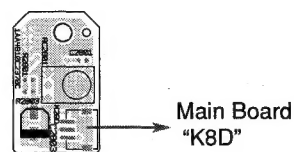
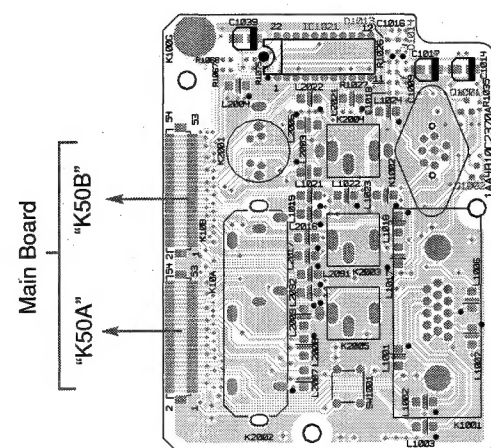


AV Board (SIDE:A)

R/C Board (SIDE:A)

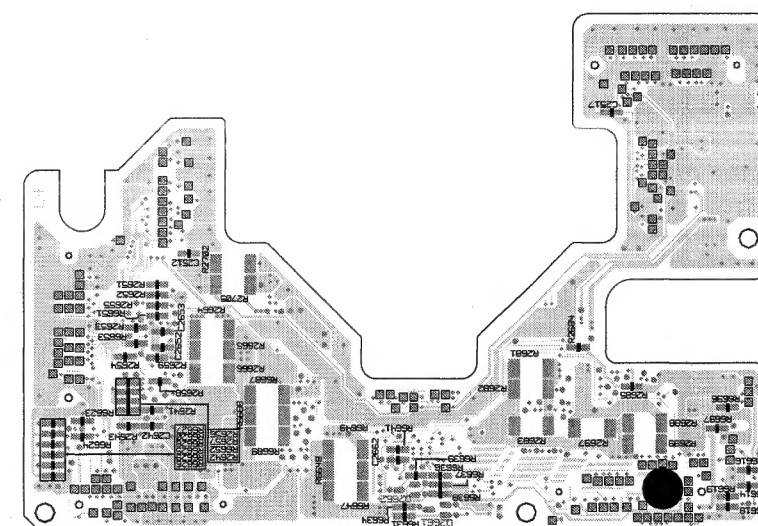
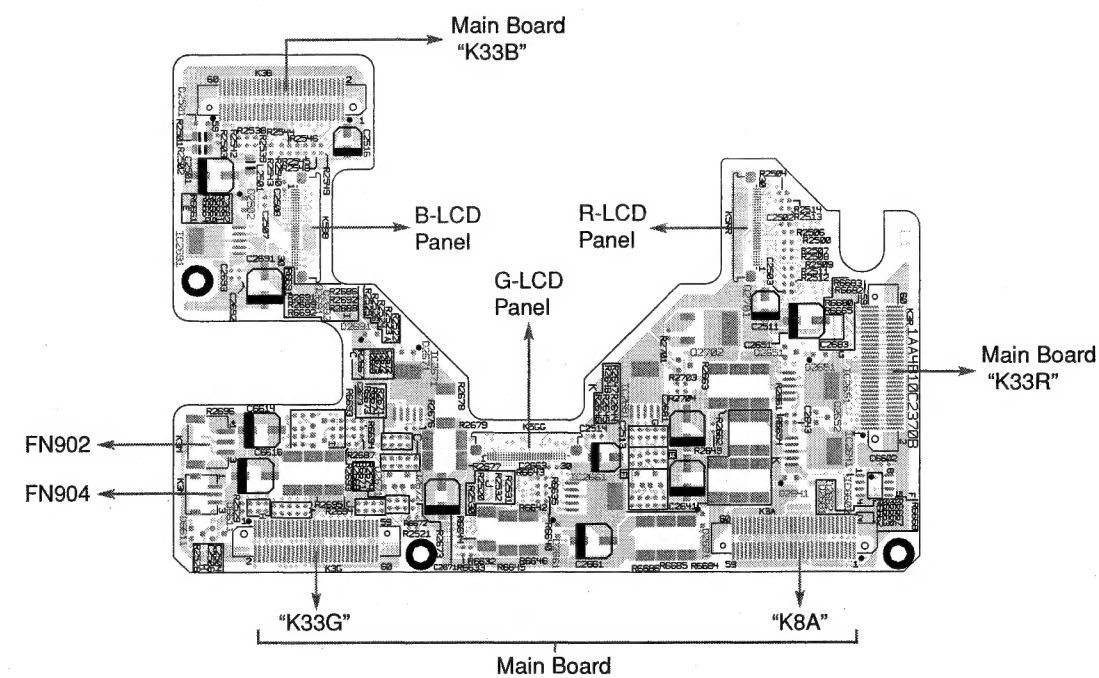
AV Board (SIDE:B)

R/C Board (SIDE:B)



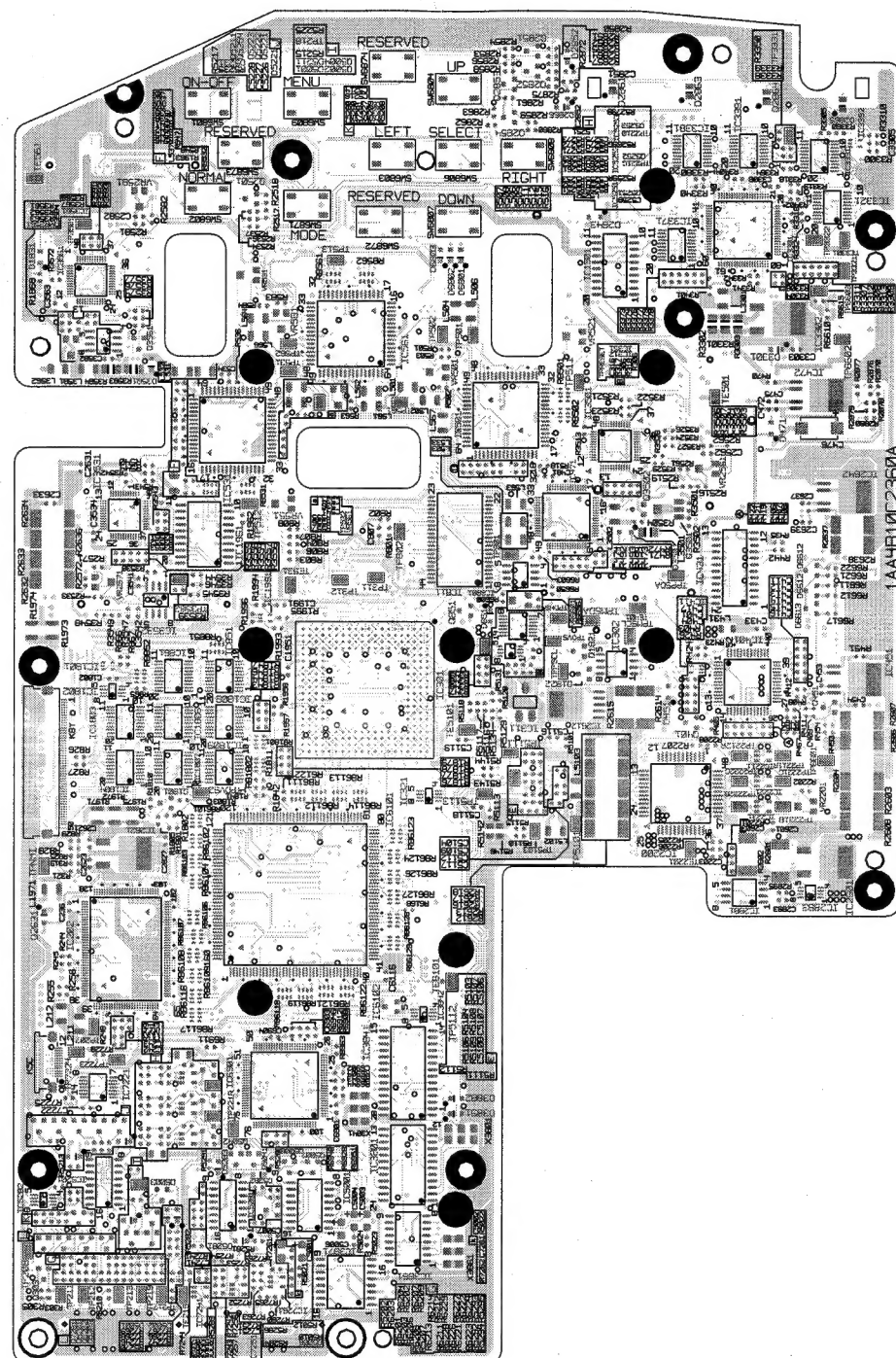
Component Board (SIDE:A)

Component Board (SIDE:B)





Main Board (SIDE:A)



Main Board (SIDE:B)

